ACCESS IMPROVEMENTS AND LAND BRIDGE CONSTRUCTION FORT VANCOUVER NATIONAL HISTORIC SITE

ENVIRONMENTAL ASSESSMENT

MAY 2005

A view of Fort Plain from the Fort Vancouver "Kanaka" Village. The Hudson's Bay Company palisade is shown to the right with two of the Fort Plain ponds shown in the background. The U.S. Army fort, later to become Vancouver Barracks, is shown on the rise above the plain. The St. James Catholic Mission and Hudson's Bay Company cemetery is shown in the right foreground. Image from collection of Theresa Langford.

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INTRODUCTION

Fort Vancouver National Historic Site (Fort Vancouver NHS) is located along the north shore of the Columbia River adjacent to the City of Vancouver (City of Vancouver) in Clark County, Washington (Figure 1). The authorized boundary of Fort Vancouver NHS is approximately 209 acres and the National Park Service (NPS) manages approximately 165 acres of this area and the U.S. Army, City of Vancouver, and Washington State manage the remainder of lands. Fort Vancouver NHS is situated in an urban setting, bordered on the south by the Columbia River, on the west by the U.S. Army's Vancouver Barracks, on the north by the City of Vancouver's Officers' Row and on the east by Pearson Field and private residences. Fort Vancouver NHS is bisected east to west on its southern end by a city street, a double track railroad berm, and State Route-14 (SR-14).

This proposal is a cooperative undertaking by the NPS, City of Vancouver, Washington State Department of Transportation (WSDOT), Federal Highways Administration (FHWA), and the Confluence Project. The project will commemorate the Lewis & Clark bicentennial, while improving trail connections within the Vancouver National Historic Reserve. The NPS has prepared this Environmental Assessment (EA) to evaluate potential environmental impacts of the Preferred Alternative and meet the requirements of the National Environmental Policy Act (NEPA).

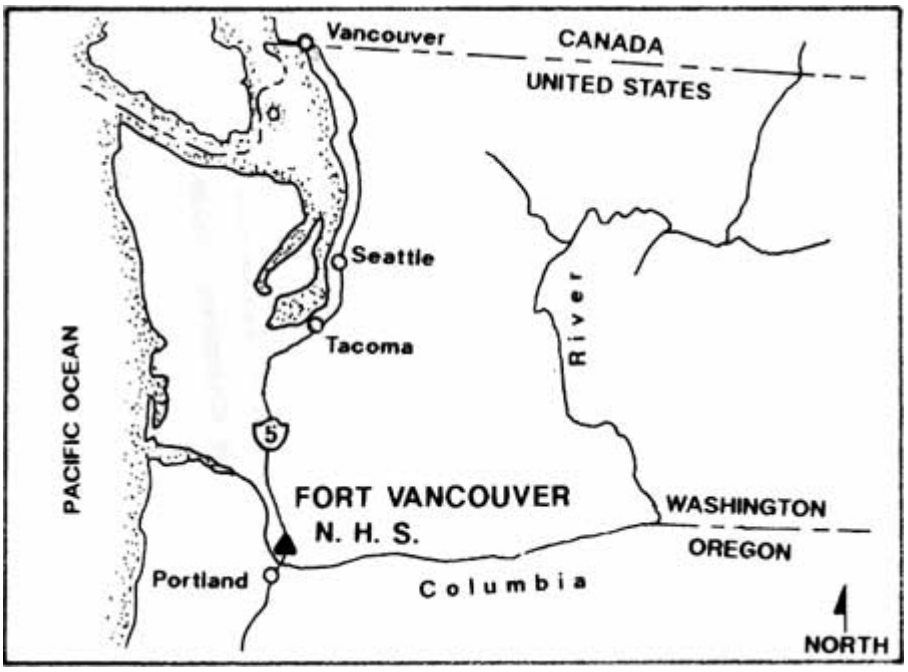


Figure 1: Vicinity Map

PURPOSE AND NEED

The proposed project is to allow partner agencies to construct the land bridge on NPS managed lands. The purpose of the project is to:

1. Commemorate the bicentennial of the journey of Lewis and Clark.
2. Improve the visitor experience by reconnecting upland Fort Vancouver NHS to the historic Columbia Riverfront Landing by providing panoramic viewpoints over the relatively flat landscape and interpreting the historic relationship including the Lewis and Clark National Historic Trail and the Oregon National Historic Trail.
3. Provide a safe and pleasant means for pedestrians and bicycles to cross over SR-14 and improve trail connections between the Discovery Trail and the Columbia Riverfront Trail
4. Meet Department of the Interior commitments with the Federal Department of Transportation to cooperatively develop programs improving visitor access to the national parks while preserving and protecting ecologica1 systems and ensuring a high quality visitor experience (Memorandum of Understanding, November 25, 1997).
5. Implement actions included in the *Fort Vancouver National Historic Site Final General Management Plan / Environmental Impact Statement* (GMP/EIS) completed in 2003.

The proposed project is needed to reconnect Fort Vancouver NHS, the Vancouver National Historic Reserve (Vancouver NHS), and the City of Vancouver to the approximately 20 acres comprising the historic Columbia River waterfront. SR-14, constructed in the late 1970s' early 1980s', created an impassable barrier for pedestrians and cyclists between the reconstructed Fort, and Old Apple Tree Park and the Columbia River. The Columbia River was instrumental to the success of the Fort Vancouver, furnishing food, resources, and the providing the avenue for commerce that led to the success of the Fort. Currently no visual or physical connection between the Fort and the River exists. The proposal will provide a physical link reflecting the shared history and improving visitor experience through interpretation, recreation, and appreciation. It is anticipated the bridge connection will increase park visitation (the Fort currently receives 70-80,000 visitors per year: the remainder of the NHS including the waterfront receives over 500,000 visitors per year). In addition, the link will provide an ADA (American with Disabilities Act) accessible trail between the Fort and the accessible ramps and paths at the Riverfront.

The land bridge will also serve as a critical link between the approximately ten mile City of Vancouver trail system along the Columbia River and the two-mile long Discovery Trail that winds through Fort Vancouver NHS, Vancouver NHR and the surrounding upland Vancouver neighborhoods. The NPS is a partner with the City of Vancouver in

developing the Discovery Trail within the park because it provides park visitors with a critical, non-motorized connection between the fort and village areas of the park.

NPS planning efforts have identified the need for a connection between Fort Vancouver and the Columbia River waterfront. The 2003 GMP/EIS also calls for interpretive improvements along the Columbia River waterfront to interpret the waterfront activities of the Hudson's Bay Company operations which the public would access via the land bridge. This connection is desired and supported by both WSDOT and the City of Vancouver as a means to safely get the public across a busy four lane freeway and railroad. The land bridge concept was selected over a conventional pedestrian overpass so that landscape elements, interpretive displays, and spectacular viewing opportunities could be incorporated. Figure 2 identifies the project area.

The concept of a crossing has been discussed and supported by NPS, City of Vancouver, WSDOT and FHWA for over 20 years. A non-motorized overpass was proposed over 10 years ago as mitigation for construction for SR-14/Interstate 5 (I-5) interchange by WSDOT. The land bridge concept was well received during public review and comment held in conjunction with the GMP/EIS and reflects the Secretary of the Department of Interior four "Cs" philosophy of conservation through communication, consultation, and cooperation.

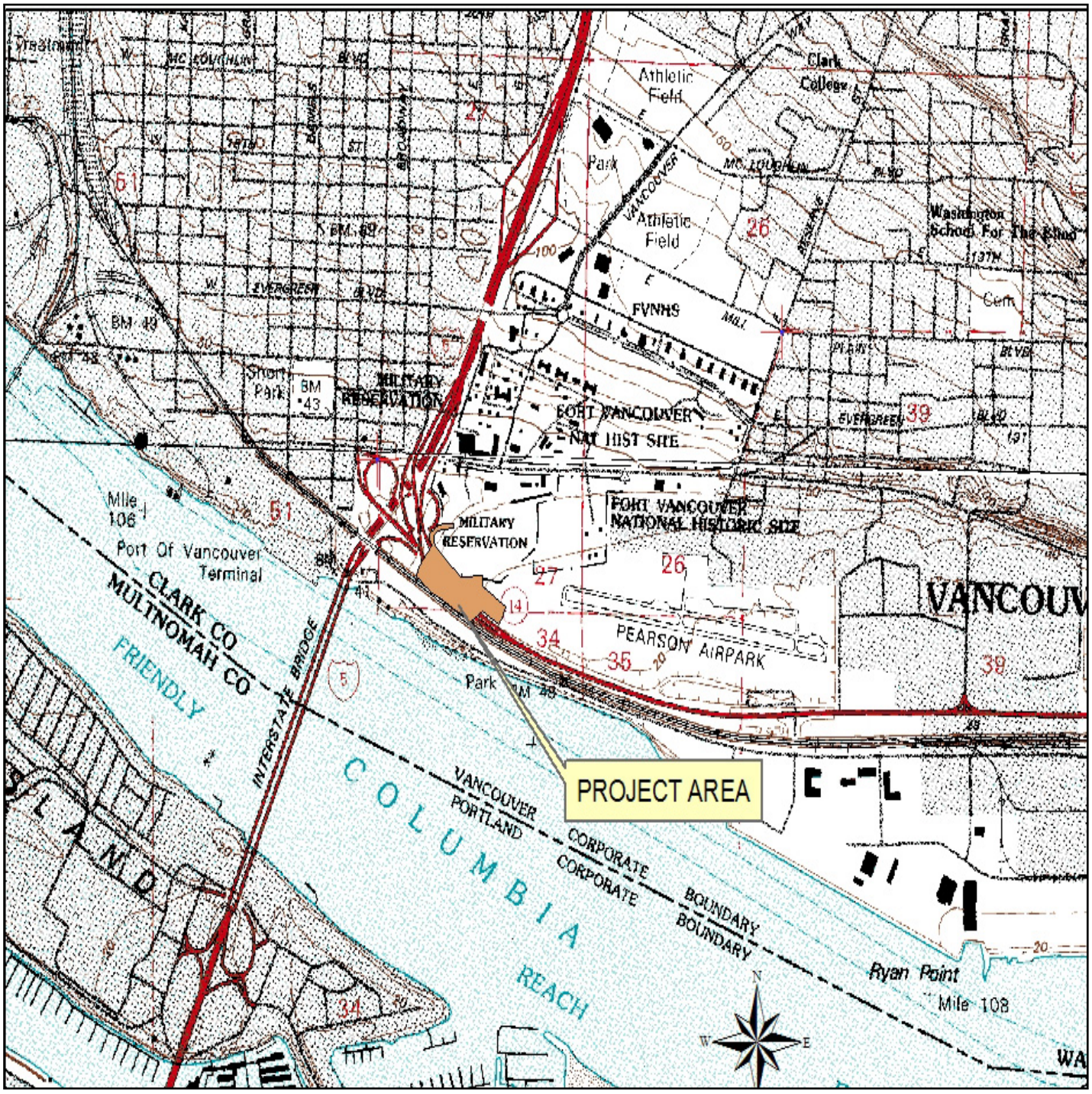


Figure 2: Project Area (Not to Scale)

ALTERNATIVES

This chapter identifies the Preferred Alternative to meet the purpose and need for the project and the No Action Alternative. The NPS will use the analysis in the EA along with input from individuals, organizations, and agencies to reach a final decision that will either be presented in the Finding of No Significant Impact (FONSI) or begin the preparation of an Environmental Impact Statement (EIS).

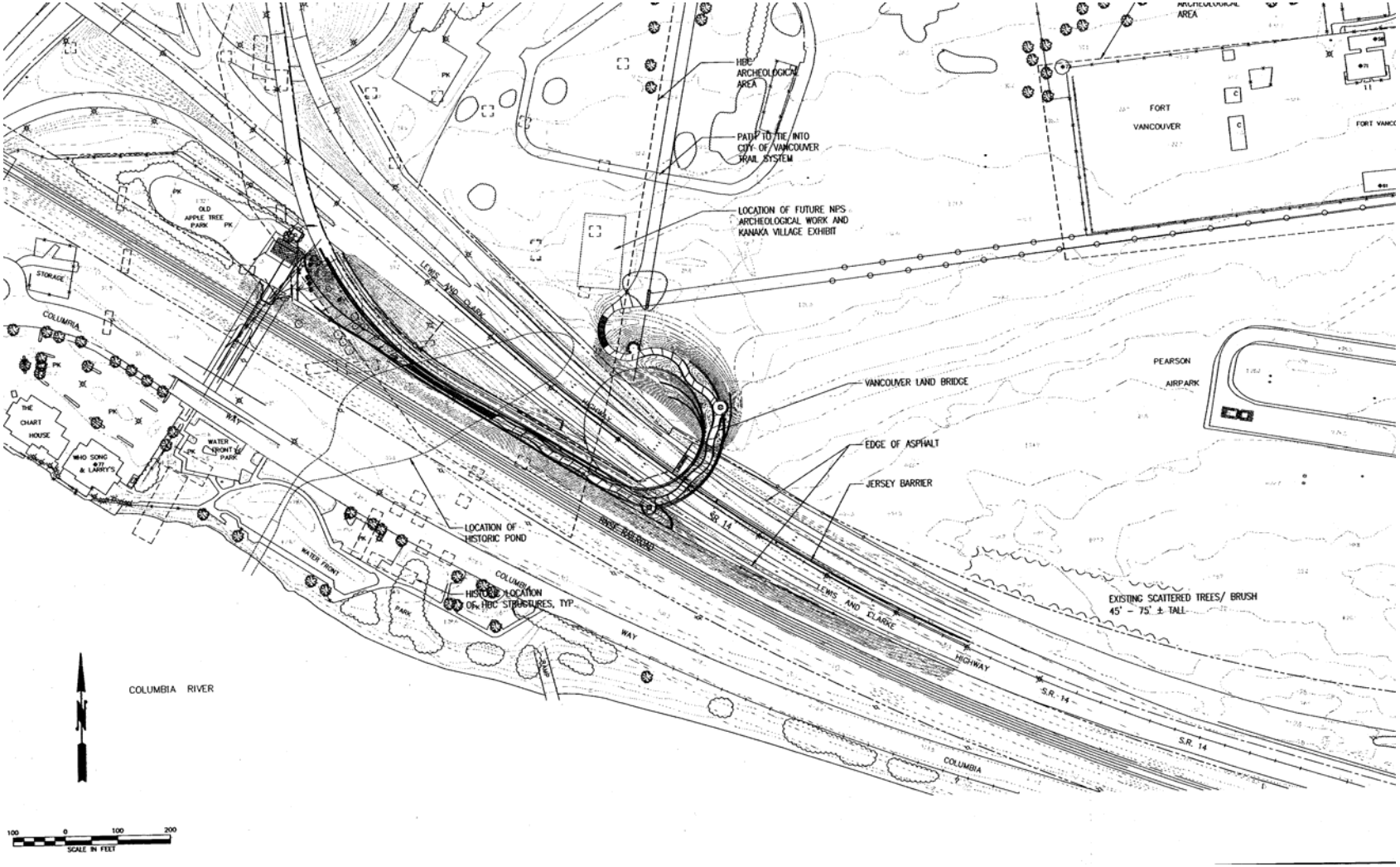
PREFERRED ALTERNATIVE

In the Preferred Alternative, NPS would allow the City of Vancouver and WSDOT to construct and maintain a pedestrian and bicycle land bridge on Fort Vancouver NHS, including construction of the north landing of the land bridge on Fort Vancouver NHS, access across Fort Vancouver NHS necessary to maintain the structure, and the construction of trail improvements on Fort Vancouver NHS to access the structure. The south landing of the land bridge would be built by the City of Vancouver and WSDOT in WSDOT's right of way, and the north landing, connecting paths, and approach fills on NPS lands. Maintenance of the land bridge, landscaping, irrigation, and lighting will be the responsibility of the City of Vancouver. The NPS would not be responsible for the funding or maintenance of the land bridge.

The land bridge is a proposed bicycle and pedestrian bridge with a hard-surface trail, bridging SR-14 with a fully accessible path and landing. The width of the structure (40-feet) allows for landscape plantings to visually screen pedestrian and bicycle visitors from the vehicle traffic below. The height of the bridge above the surrounding landscape would give visitors an excellent panoramic view of the Fort and its relationship to the Columbia River. Near each end of the land bridge, widened overlooks would be provided along with wayside interpretive exhibits. Unlike a typical caged pedestrian bridge over a freeway, the proposed land bridge would be a graceful structure that incorporates a meandering path, extensive landscaping, view points for interpretation, and low level lighting. The exact footprint of the land bridge would be determined by the cooperating agencies after reviewing the environmental analysis and subsequent public comment; however the land bridge is shown in its approximate proposed location in Figure 3.

The proposed structure would include a circular ramp on Fort Vancouver NHS property that would elevate the pedestrian/bicycle crossing about 25 feet above SR-14 at the north abutment. Another ramp on the south side would be constructed at Old Apple Tree Park to elevate the bridge crossing to 23 feet above SR-14 at the south abutment. Construction would include grading, draining, surfacing, paving, and landscaping. The structure would be 40 feet in width and a meandering pathway, approximately 10 to 14 feet wide, would be flanked by landscaping.

Figure 3: Preferred Alternative



To connect the land bridge to the Columbia Riverfront, the design includes construction of a path tying the south abutment to Old Apple Tree Park and from there visitors can use an existing underpass beneath the Burlington Northern Santa Fe (BNSF) railway to access the river. The path would be approximately 10-14 feet wide and include landscaping, using vegetation to screen the railroad and freeway.

The proposal is a cooperative undertaking by the NPS, City of Vancouver, WSDOT, FHWA, and the Confluence Project. The City of Vancouver is the lead agency for the proposed design and environmental work associated with that portion of the work within the WSDOT right-of-way. The NPS is providing environmental review that is included in this EA potentially allowing for the construction and maintenance of the structure on NPS lands (Preferred Alternative). Additionally, NPS is providing archeological investigations for the project, under contract with the City of Vancouver. The Confluence Project, a non-profit organization established to manage a number of projects between Clarkston, WA and the Pacific Ocean along the Columbia and Snake Rivers commemorating the bi-centennial of the journey of Lewis and Clark, is providing financial and project management assistance for the project.

Construction is proposed to begin in August 2005 and is projected to last 12 to 18 months. Potential ground-disturbing activities associated with the project could include:

- Geotechnical subsurface explorations for planning purposes
- Excavation of holes for piers or footings to support the bridge
- Grading, draining, and filling to construct trails and ramps up to the bridge
- Surfacing the structure
- Trenching for electric utilities and installation of trail lighting
- The removal of vegetation, grading, and the introduction of landscaping including the possible excavation of trenches for irrigation systems
- Establishment of a staging area for vehicles and equipment

The land bridge project area is approximately 8.5 acres (3.4 ha), extending east from the eastern edge of Old Apple Tree Park (managed by the City of Vancouver), over the railroad and SR-14, to Fort Vancouver NHS. The north abutment of the land bridge is situated along the outer edge of the historic Kanaka Village site and connects with the planned Discovery Loop Trail segment.

In addition to ground disturbance, the highways that serve the area would be used to transport building materials and to remove construction debris from the jobsite. Trucks would arrive at the site from both the eastbound and westbound direction of SR-14 and may carry heavy equipment, building material, fill material, or debris. During construction, approximately 550 to 600 truck trips would be needed to deliver the estimated 11,000 to 12,000 cubic yards of fill material (20 cubic yards per truck). The trucks will likely pull directly off eastbound SR-14 onto an existing path to enter the

construction site. The borrow source of the fill material has not yet been identified. In addition, building material, like steel, concrete, and planting material would be delivered to the site adding an estimated 500 truck trips to the area.

The staging area for the project would be adjacent to the proposed construction site on the north side of SR-14. The area would be up to five acres in size and covered with a geotextile fabric and gravel to prevent ground disturbance. Post construction the area would be revegetated as needed to restore the grass. In addition, staging areas would also include approximately two acres of NPS property south of the BNSF Railroad right-of-way and between Columbia Way, and one acre of paved area at the northeast corner of Kanaka Village, south of the army barracks known as the "bone yard". The bone yard is currently used by the NPS for storage of fencing and pathway materials. Staging areas would be fenced with temporary construction fencing to control vehicular access and prevent disturbance of other areas.

A construction access road would be maintained along the east side of Kanaka Village in the alignment of the historic north-south roadway, turning east at the army barracks and following the alignment of the Discovery Loop trail. After construction is complete, the construction access road would be surfaced and used as the permanent pathway.

The Preferred Alternative also includes measures to protect water quality during and after construction. During construction, standard best management practices would be implemented to reduce the potential for storm water pollution (see Resource Protection Measures). In addition, the Preferred Alternative includes a storage tank located in the land bridge abutment that will capture storm water for later irrigation use. An irrigation well would also be drilled at the site to water the plantings on the land bridge during the dry season.

NO ACTION ALTERNATIVE

The status quo would be maintained and NPS would not allow for the construction identified under the Preferred Alternative. It is likely that the land bridge and trail improvements would not be constructed on NPS managed land and the project would be canceled or moved to different location.

Alternatives Considered but Dismissed from Further Review

Tunneling underneath SR-14 was considered but rejected, because of the cost and engineering challenges presented by the high water content in the soil and the impacts to the environment, including potential impacts to archeological resources and traffic impacts from moving and disposing large quantities of soil. Tunneling would also be below the 100-year flood elevation and could be affected by periodic flooding. Additionally, tunneling does not meet the project objectives, such as improving Visitor Experience, and conflicts with NPS planning documents, like the GMP/EIS.

Environmentally Preferred Alternative

In accordance with NPS Director's Order-12, *Conservation Planning, Environmental Impact Analysis, and Decision-making*, the NPS is required to identify the "environmentally Preferred Alternative" in environmental documents. The environmentally Preferred Alternative is determined by applying the criteria suggested in the National Environmental Policy Act (NEPA) of 1969, which is guided by the Council on Environmental Quality (CEQ). The CEQ (46 FR 18026 - 46 FR 18038) provides direction that "[t]he environmentally preferable alternative is the alternative that will promote the national environmental policy as expressed in NEPA's Section 101", which considers:

1. fulfilling the responsibilities of each generation as trustee of the environment for succeeding generations;
2. assuring for all generations safe, healthful, productive, and aesthetically and culturally pleasing surroundings;
3. attaining the widest range of beneficial uses of the environment without degradation, risk of health or safety, or other undesirable and unintended consequences;
4. preserving important historic, cultural and natural aspects of our national heritage and maintaining, wherever possible, an environment that supports diversity and variety of individual choice;
5. achieving a balance between population and resource use that will permit high standards of living and a wide sharing of life's amenities; and
6. Enhancing the quality of renewable resources and approaching the maximum attainable recycling of depletable resources (NEPA Section 101(b)).

The Council on Environmental Quality states that the environmentally preferable alternative is "the alternative that causes the least damage to the biological and physical environment; it also means the alternative which best protects, preserves, and enhances historic, cultural, and natural resources (46 FR 18026 – 46 FR 18038)." According to NPS NEPA Handbook (DO-12), through identification of the environmentally Preferred Alternative, the NPS decision-makers and the public are clearly faced with the relative merits of choices and must clearly state through the decision-making process the values and policies used in reaching final decisions.

In this case, the Preferred Alternative is clearly consistent with NEPA criteria two, three, and five, in particular providing a "safe, healthful, productive, and aesthetically and culturally pleasing surroundings" for NPS visitors. In addition, it is arguably consistent with criteria one, in fulfilling trustee responsibilities in managing the environment because the project repairs a historic connection between Fort Vancouver NHS, Vancouver NHR, and the City of Vancouver with the Columbia River.

There are, however potential adverse impacts to archeological resources that are directly addressed in NEPA criteria four. Although unlikely, NPS decision-makers are aware that construction of this project could involve the unearthing of archeological resources and

potentially human remains. Measures are included in the project to protect archeological resources and to recover artifacts to benefit our understanding of the development of the Pacific Northwest for future generations. On balance, due to beneficial impacts to visitor experience and the restoration of a historic connection, it appears the Preferred Alternative best meets the criteria for the Environmentally Preferred Alternative.

Table 1: Comparison of Impacts and Alternatives

Resource Topic /Consultation Requirement	Preferred Action Alternative	No Action Alternative
Cultural Resources/ **Archeological and Historic Preservation Act of 1974 (16 U.S.C. §469-469c); National Historic Preservation Act of 1966, as amended (16 U.S.C. §470-470t)** **EO 11593, Protection and Enhancement of the Cultural Environment, May 1971** **Native American Graves Protection and Repatriation Act (25 U.S.C. §3001 - 3013)**	Local to regional direct and potential cumulative long-term moderate adverse impact to one archeological site listed on the National Register. Archeological resources could be affected during ground disturbing activities associated with construction or buried permanently by fill material. Stipulations of the MOU being completed in compliance with Section 106 of the National Historic Preservation Act would result in identification of archeological resources and in mitigation of adverse impacts related to construction. Data recovery would benefit the understanding of the history of the site.	No impact.
Transportation and Circulation	Local direct long term moderate beneficial impact to non-motorized circulation. Also, local direct short-term minor to moderate adverse impacts to vehicle traffic in the I-5/SR-14 interchange due to construction traffic and lane closures. Construction cranes could lead to local direct short term minor adverse impacts to air transportation at Pearson Field. Local direct long-term negligible to minor adverse impacts to air transportation at Pearson Field and railroad transportation from potential increased public visitation.	Local indirect long term moderate adverse impact from existing circulation conditions for non-motorized transportation. No impacts to vehicle, rail, or air, traffic.

Resource Topic /Consultation Requirement	Preferred Action Alternative	No Action Alternative
Visitor Experience	Construction could lead to local short-term minor adverse impacts to visitors from restricted access to Old Apple Tree Park and certain areas of Fort Vancouver NHS. Local to regional direct long term moderate beneficial impact to Visitor Experience from the proposed project.	Local to regional indirect long term moderate adverse impact to Visitor Experience from the existing conditions.
Aesthetic Resources	Local direct, indirect, and possibly cumulative long term minor to moderate adverse impacts to the historic setting and local direct long term minor to moderate beneficial impact to the visual resources.	Local indirect long term minor to moderate beneficial impact to the historic setting when compared to the Preferred Alternative and a local direct minor to moderate adverse impact to visual resources.
Park Operations	Local direct long term minor adverse impact to park operations from increased facility management and security responsibilities.	No impact.
Geohazards, Geologic Resources, Soils	The structure is designed for seismic safety, reducing the potential for failure in an earthquake and reducing impacts to local direct and possibly cumulative long term minor and adverse. Grading and importing fill would have a local direct and cumulative long term minor adverse impact to geologic resources.	No impact.
Water Quality/ **Clean Water Act (33 U.S.C. §1251-1376 et seq.); Oil**	Local indirect and cumulative short term minor adverse impacts to water quality from storm water runoff related to construction.	No impact.

Resource Topic /Consultation Requirement	Preferred Action Alternative	No Action Alternative
Pollution Control Act of 1990 (33 U.S.C. §2701 et seq.)		

RESOURCE PROTECTION MEASURES

Under the Preferred Alternative, best management practices and mitigation measures would be used to prevent or minimize potential adverse effects associated with the project. These practices and measures would be incorporated into the project construction documents and plans. Resource protection measures undertaken during project implementation would include, but would not be limited to, those listed in Table 2. The impact analyses in the "Affected Environment and Environmental Consequences" section were performed assuming that these best management practices and mitigation measures would be implemented.

Table 2: Resource Protection Measures

Resource Topic	Mitigation
Cultural Resources	1. The Preferred Alternative includes a Memorandum of Agreement with the Washington State Historic Preservation Officer to define mitigation measures. 2. Archeological resources would be investigated, excavated, tested, documented, protected, and evaluated prior to ground disturbing activities. 3. The National Park Service would continue to consult with affiliated and interested tribes throughout the planning process to avoid impacts to traditional cultural properties. 4. A meeting would be held with the park archeologist to discuss the area's archeological resources, clarify construction schedules, and establish a plan for archeological monitoring of ground-disturbing site work, including: • Clearing • Topsoil removal • Structure or trench excavation • Landscaping

Resource Topic	Mitigation
	• Construction of temporary facilities 5. To reduce unauthorized collecting from areas: • Construction personnel would be educated about the need to protect cultural resources encountered. • Instructions would be given regarding notification of the appropriate personnel if human remains were discovered. • Work crews would be instructed of the illegality of collecting artifacts on federal lands (Archeological Resources Protection Act). 6. If prehistoric or historic archeological resources are discovered during any portion of the proposed action, work in the area associated with the find would cease until evaluated by the park archeologist or designated representative, and procedures outlined in 36 CFR 800 would be followed, potentially including relocation of the work to a non-sensitive area to avoid further disturbance to the site until the significance of the find can be evaluated. 7. Discovered resources would be evaluated for their potential National Register of Historic Places significance, and, if needed, mitigation measures would be developed in consultation with the Washington State Historic Preservation Officer, such as changes in project design and/or archeological monitoring of the project and data recovery conducted by an archeologist meeting the Secretary of the Interior's standards. **Responsibility: Construction Management Team (City of Vancouver Construction Lead and NPS Cultural Resources staff)**
Transportation and Circulation	1. A Traffic Management Plan would be prepared to address lane closures, vehicle safety, and access and egress from the construction site. **Responsibility: Construction Management Team (City of Vancouver Construction Lead)**

Resource Topic	Mitigation
Visitor Experience	1. The Fort palisade and Visitor Center would not be closed during construction. 2. Local newspapers, the Park's newsletter, the park's website, and visitor center would include updated information regarding closures or access restrictions during construction and demolition. 3. Specific provisions would be followed, to minimize adverse effects on visitors: • The majority of material deliveries would be made and disruptive work would be done during the week, rather than on weekends or holidays. • The contractor would be encouraged to deliver the majority of materials in the early morning hours (before 10:00 a.m.). • Paved areas used by vehicular and pedestrian traffic would be swept and kept clean of construction debris and soils, as necessary. 4. To ensure visitor safety, an accident prevention plan, including a job hazard analysis for each major phase of the proposed project would be a required. The plan would include: • Site conditions • Required project inspections and safety meetings. • Fire Prevention • Visitor Safety 5. Visitor safety would be ensured day and night by fencing of the construction limits of the proposed action. Trucks hauling demolition debris and other loose materials that could spill onto paved surfaces would be covered or would maintain adequate freeboard. 6. The use of hazardous materials would be approved in advance, including and analysis of explosive, flammable, poisonous, corrosive, oxidizing, or irritating substances (relative to safe storage and use). **Responsibility: Construction Management Team (City of Vancouver and NPS Public Relations)**
Water Resources	1. It is likely that a Storm Water Pollution Prevention Plan would be required under Phase II of the National Pollution Elimination Discharge System requirements of the Clean Water Act. The plan would include measures to prevent soil from eroding and depositing into water sources, including

Resource Topic	Mitigation
	but not limited to: • Storing topsoil surrounded by silt fencing and overtopped by semi-permeable matting anchored together to prevent siltation from heavy runoff during rainstorms. • Adequate erosion control or drainage structures would be installed and maintained. • An adequate hydrocarbon spill containment system would be available on site in case of unexpected spills in the project area. • Management of fuels, oils, solvents, and chemicals used in construction operations and maintenance. • Management of solid waste products determined to be a hazard by the Department of Ecology. • Maintenance and management of contaminated soils and water encountered or inadvertently generated during construction. **Responsibility: Construction Management Team (City of Vancouver Construction Lead)**

Table 3: Topics Dismissed from Further Review

Resource Topic /Consultation Requirement	Reason Dismissed
Endangered Species / Wildlife **Endangered Species Act of 1973, as amended (16**	Consultation with the U.S. Fish and Wildlife Service and the Washington State Natural Heritage Inventory indicate that no threatened or endangered species will be impacted by the proposed project. In particular, it appears no sensitive species are found in the project area. The edge of the project area is approximately 400 feet from the Columbia River edge. Sensitive species aquatic species in the Columbia River include anadromous salmon species migrating through the Columbia River adjacent to the park. The chinook salmon (*Oncorhynchus tshawytscha)* is listed as threatened, coho

Resource Topic /Consultation Requirement	Reason Dismissed
U.S.C. §1531 et seq.) **Fish and Wildlife Coordination Act (16 U.S.C. §661-666c)**	salmon (*Oncorhynchus kisutch*) is listed as a candidate species, chum salmon (*Oncorhynchus keta)* is listed as threatened, steelhead (*Oncorhynchus mykiss*) is listed as threatened, sea-run cutthroat trout (*Oncorhynchus clarki clarki*) proposed threatened. In addition, the sockeye salmon (*Oncorhynchus nerka),* native to the upper Salmon River in Idaho, are listed as endangered on the Snake River and must migrate through the Columbia River to reach its spawning areas. The Water Resources Section in this EA includes a discussion of the Best Management Practices that will be employed to prevent storm water runoff from discharging into the river. No threatened or endangered plant species are known to occur within the park boundary. The project area is dominated by non-native grasses. The Washington Natural Heritage Program currently has no records for rare plants or high quality ecosystems in the vicinity of Fort Vancouver National Historic Site. However, the Washington Natural Heritage Program does have a record of tall bugbane (*Cimicifuga elata*), a state threatened plant and a federal species of concern, occurring about 1.5 miles from the park. Separately, the GMP/EIS called for native plants will be used to screen modern non-historic elements such as the I-5 bridge and SR-14. It appears there are no sensitive environments in or around the project area at risk from non-native species. Wildlife proof garbage and recycling cans will be installed to prevent foraging.
Floodplains and Wetlands/ EO 11988 (Amended by EO 12148) Floodplain Management, May 1977 **EO 11990, Protection of Wetlands, May 1977**	**Wetlands** Executive Order 1990, Protection of Wetlands, directs federal agencies to avoid to the extent possible adverse impacts associated with the destruction or modification of wetlands and to avoid direct or indirect support of new construction in wetlands wherever possible. The project area consists of upland grasses and a Wetlands Delineation conducted in support of the project found that "no wetlands were identified on this site. (Resources Company, 2005)" **Floodplains** Executive Order 11988, Floodplain Management, and the guidelines for implementing the Executive Order

Resource Topic /Consultation Requirement	Reason Dismissed
	developed by the Water Resources Council published in the *Federal Register* in 1978, direct environmental analysis for proposed actions and alternatives located in floodplains to identify potential impacts associated with occupation and modification of floodplains. Elevations within the park boundary extend from 102 feet at the northern boundary of the park along Evergreen Boulevard to 24 feet along the Columbia River. According to the U.S. Army Corps of Engineers, the 100-year floodplain level is 28 feet mean sea level while the 500-year floodplain level is 32 feet mean sea level. The average mean sea level elevation of the palisade area is 30 feet. The 100-year floodplain is the area that has a 1% chance of being flooded each year. Other on-site developments, dikes, and dams on the Columbia River have substantially altered the existing floodplain. Although a portion of the park and Pearson Field is identified as a floodzone, the project area is not located within the 100-year floodplain (NPS, 2002). No impacts are anticipated.
Soundscape / Noise **Noise Pollution and Abatement Act (42 U.S.C. §7641)**	The Preferred Alternative would result in a local direct short term minor adverse noise impacts during construction activities. The project area is dominated by noise from SR-14, the railroad, and Portland International Airport. Construction activities would occur during daytime hours and impact visitors, recreational users, and motorists. There are few, if any, permanent noise receptors in the area and because of the distance from the source, it is unlikely that residents in the City of Vancouver would be impacted. In addition, there are no plans for pile driving.
Lightscape	The structure will require lighting for visitor safety. The project area is dominated by lighting from SR-14. The new lighting will be directed downward to reduce errant light and be the minimal to allow for a safe environment. The existing environment includes lighting from the cars on SR-14, for the freeway itself, and for the I-5 Interchange. The additive impacts of lighting on the land bridge will be a local long term negligible adverse impact to the night sky. In addition, lighting would not impact operations at Pearson Airfield.
Air Quality	Ambient air pollutant concentrations for the park are within national and state air quality standards. Based on

Resource Topic /Consultation Requirement	Reason Dismissed
Clean Air Act (42 U.S.C. §7401 et seq.)	representative ambient air quality monitoring from nearby monitoring stations, the park is within a designated attainment area (specifically, concentrations below standards) for criteria pollutants. Emissions associated with this project are related to short term construction and long term visitation. Construction activities are expected to result in a local direct short term negligible to minor adverse impacts on air quality due to vehicle emissions and dust generated during construction. Standard Best Management Practices such as covering soil stockpiles will be included in the construction contract. The land bridge and associated trail improvements are not designed to greatly increase visitation, rather the proposed project will provide a safe and enjoyable visitor experience for those already coming the Fort Vancouver NHS. Visitation may initially increase after construction as people come to see the structure, but not substantially and the impacts to air quality are expected to result in long term direct negligible to minor adverse increases in vehicle emissions.
Prime or Unique Farmlands **Farmland Protection Policy Act (7 U.S.C. §4201 et seq.)**	Fort Vancouver NHS is not included in the definition of prime or unique farmlands because it is located in an urban area. No impacts are anticipated.
Socioeconomic / Environmental Justice **EO 12898, Federal Actions to Address Environmental Justice in Minority**	Project construction will provide an increase in employment and spending in the project area, resulting in a local direct and indirect short and long term negligible to minor beneficial impact on the local economy. No other economic or socioeconomic impacts are anticipated.

Resource Topic /Consultation Requirement	Reason Dismissed
Populations and Low-Income Populations, February 16, 1994	
Hazardous Substances **Resource Conservation and Recovery Act (42 U.S.C. § 6901-6993 et seq.)**	This project involves the handling of negligible amounts of hazardous substances, including the fluids used to fuel and lubricate the construction equipment. Fueling or other activities involving hazardous substances would not occur adjacent to the Columbia River or storm drains that lead to the river. It is likely that a permit will be required under the National Pollution Discharge Elimination System that would include additional requirements to prevent storm water pollution. No hazardous substances will be stored or maintained at the land bridge or on the trails. No long term impacts are anticipated. A Phase I Environmental Site Assessment was conducted for the project in March 2005. The report states "In our opinion, this ESA (Environmental Site Assessment) has not disclosed recognized environmental conditions associated with the subject property (GRI 2005)." Should hazardous substances be found in the project area, a qualified remediation firm would be contracted to analyze and remediate the site in accordance with federal and state regulations prior to the commencement of construction.
Land Use	Lands within the boundary of Fort Vancouver National Historic Site were zoned by the NPS as "historic" in the 1978 *Fort Vancouver National Historic Site Master Plan* and are listed on the National Register of Historic Places. Two subzones are identified on the existing Land Management and Use map for present nonhistoric uses. One is a development subzone in the northeast corner of the NHS where the visitor center, residence, administration, and maintenance facilities are accommodated. The second subzone is a special use subzone for permits and leases which are in effect with the City of Vancouver for an airfield, and a right-of-way for the Burlington Northern Santa Fe Railroad for a track line. These special land uses occur in the southern portion of the NHS immediately adjacent to the reconstructed Fort.

Resource Topic /Consultation Requirement	Reason Dismissed
	The Preferred Alternative is consistent with the local and federal zoning, including 2003 GMP/EIS for Fort Vancouver NHS. Additionally, the Preferred Alternative would not impact the nonhistoric subzones identified in the 1978 Master Plan. No land use impacts are anticipated.

AFFECTED ENVIRONMENT

PROJECT SETTING

Fort Vancouver NHS is located in southwestern Washington on the north bank of the Columbia River and in 1829, the Hudson's Bay Company (HBC) established headquarters and a principal supply depot for its operations west of the Rocky Mountains at the site. Fort Vancouver NHS is within Washington's Third Congressional District in Clark County and is located within the heart of Vancouver's Central Park. The authorized boundary of Fort Vancouver NHS is defined by the Columbia River to the south, Evergreen Boulevard to the north, East Reserve Street to the east, and Fort Vancouver Way and I-5 to the west.

The land bridge project area is located in the S ½ of the SE ¼ of Section 27 and the N ½ of the NE ¼ of Section 34 of Township 2 North, Range 1 East, Willamette Meridian. The area is located on a historical floodplain of the Columbia River. Currently, the project area is located between two highly-modified transportation corridors—the railroad berm for the BNSF railroad and the road-bed and off ramps of SR-14 and dominated by non-native grasses and shrubs and plantings associated with the highway. The area north of SR-14 is open, grassy land associated with the HBC Village portion of the National Park.

Figure 4: Views southwest from the stockade towards the I-5 Bridge.

LEGISLATIVE BACKGROUND

Fort Vancouver National Historic Site (Fort Vancouver NHS) began as Fort Vancouver National Monument, established on June 19, 1948 "to preserve as a national monument the site of the original Hudson's Bay stockade (of Fort Vancouver) and sufficient surrounding land to preserve the historical features of the area" for "the benefit of the people of the United States" (62 Stat.352 and the Senate Report on the legislation). The Department of the Interior report on the legislation further stated that the lands so dedicated should fulfill "two essential requirements—the preservation of the historic stockade…and the preservation of the historic parade ground of the later United States Army Post."

To improve the conditions for achieving the legislative requirements of the park, Congress passed an act June 30, 1961 (75 Stat.196), enlarging the boundaries of Fort Vancouver and redesignating the national monument as a national historic site. Congress also allowed for a revision of the boundaries of the monument to include an additional 130 acres of land "adjacent to, contiguous to, or in the vicinity of the existing monument" (U.S.C. Section 450ff-3).

In 1990, Congress directed a commission to study the feasibility of establishing the Vancouver National Historic Reserve (Reserve) to collectively manage the sites where significant historical events occurred in Vancouver, Washington and resulted in a rich collection of cultural resources, including sites such as Fort Vancouver, Vancouver Barracks, Pearson Field, the Columbia Riverfront, and Kaiser Shipyards. The commission consisted of five elected representatives, a private citizen, and representatives from the National Park Service, the Department of the Army, the City of Vancouver, and the Washington State Office of Archaeology and Historic

Preservation. Completing its study in April 1993, the commission recommended establishment of the Reserve.

The 366-acre Reserve was established in 1996 (Public Law 104-333, Section 502). Though not a unit of the National Park System, it is an affiliated area, making the Reserve eligible for technical and financial aid from the National Park Service. Congress gave national status to the area when it established the Reserve. As part of a public/private partnership, Congress provides support to the Reserve through annual appropriations that match other public and private funds. The Reserve is cooperatively managed by a partnership composed of the same four agencies that served on the commission. A cooperative agreement signed by the Reserve Partners provides for specific funding and program support for various Reserve functions. The NPS is the lead Reserve Partner for interpretation, education, and cultural resource protection. Leadership in these areas provides an important contribution in fulfilling the goals of the *Vancouver National Historic Reserve Cooperative Management Plan*.

Fort Vancouver NHS is essentially a park within a park because of the legislatively established Reserve that surrounds it. As a partner in the Reserve and a signatory agency to its cooperative management plan, NPS is committed to communicate and coordinate its planning and operational activities within the context of the larger Reserve.

In addition, Fort Vancouver NHS is located along the Lewis and Clark National Historic Trail. The National Parks and Recreation Act of 1978, Public Law 95-625, amended the National Trails System Act to include the new category of national historic trails and designated the Lewis and Clark Trail as one of four national historic trails. National historic trails are considered units of the National Park System and have as their purpose the identification and protection of historic routes and their remnants and artifacts for public use and enjoyment. The comprehensive plan, produced in January 1982, recommends the development of opportunities for retracing the historic expedition route, either as a water trail, a land trail, or a motor route. The plan states:

> "Fort Vancouver National Historic Site is located in the city of Vancouver, Washington, near the Columbia River waterfront at mile 107 (Map 43), National Park Service. Although the establishment of this Fort postdates the Lewis and Clark Expedition, the site has an indirect relationship to the Expedition and has the potential to provide some Lewis and Clark interpretation. Just as one purpose of the Expedition was to strengthen U.S. claims to at least a part of the Oregon country, the establishment of Fort Vancouver in 1824-25 by the Hudson's Bay Company was designed to strengthen Britain's claim. In addition, Lewis and Clark's reports had a significant influence on the expansion of the fur trade to the Northwest, an area of commerce which the Hudson's Bay Company very successfully exploited. These relationships to Lewis and Clark should be developed at Fort Vancouver (Page 76)."

CULTURAL RESOURCES

SITE HISTORY

The land bridge project area may contain important archaeological remains of the Hudson Bay Company and U.S. Army periods. These remains may contribute to the significance of the historic properties (45CL163H, 45CL164H, and 45CL300). Specifically, areas associated with the Village and structures near the pond and later U.S. Army structures dating to later in the 19th century. Remains of important transportation features, roads and railroads may also be present in the project area. In compliance with Section 106 of the National Historic Preservation Act, testing was undertaken in the project area.

At the time of Lewis & Clark's expedition to the Pacific Ocean down the Columbia River, the Vancouver/Portland Basin contained one of the densest populations of American Indians north of Mexico. It is thought that the resident population of approximately 4-5,000 Chinookan people would swell to nearly 10,000 during the spring run of salmon (Boyd and Hayda 1987). The seasonal influx of people during the salmon runs and the presence of the major rivers brought distant people together. Both riverine and interior peoples, including Chinook, Cowlitz, Klickitat, Taidnapam, Shahala, Kalapuya and Molala, would congregate in the area during the spring. People were linked through marriage and other kinship ties to utilize the abundant fish, game, bulbs, roots, and other resources of the Vancouver/Portland Basin.

Prehistoric artifacts found at Fort Vancouver NHS confirm that American Indians occupied and used the area, including the land bridge project area. Fort Vancouver NHS is located on a former prairie and wetlands that was highly productive for native food resources and the area was likely the terminus of the "Klickitat Trail" that linked the interior Klickitat and Taidnapam people to the riverine Chinook people (Norton, et al. 1983). This trail linked the resources of the river (smelt, sturgeon, salmon, and wapato), with resources of the prairies and mountains (camas, oak, berries, and game animals). Reportedly the area was called *skit-so-to-ho* by the Chinook, *ala-sikas* ("the place of the mud turtles") by the Klickitat, and *alašíkaš* "place of turtles" by the Sahaptin (Tolmie 1885:31 and Norton, et al. 1983:137).

The complex historic occupation of Fort Vancouver NHS was highly diversified socially and culturally. With the establishment of the first Hudson's Bay Company post in 1824, the region became integrated into the international political economy that the Company represented through its role in the British fur trade and other mercantile activities (Mackie 1997). At that time, many different native people already lived adjacent to the west coast of Canada and the United States, along the tributaries of the Cascade Mountain Range, and east of the mountains on the Plateau of the Interior. Near the site of the Hudson's Bay Company post, local natives, some of whom were known as Chinook Indians, had villages and interacted extensively with native people from elsewhere. The London-based trading company operated in a vast geographical area throughout northern North America and at outposts in Hawaii and California. The indigenous diversity of the region surrounding the new HBC post was a foundation upon which people from many ethnic and national origins found fertile ground.

The initial Hudson's Bay Company fort site, occupied from 1825-1828, was located about three-quarters of a mile from the river on the edge of a terrace. This location, 60 feet above the low-lying river plain, offered protection from floods and served as a strategic defensive position from the undetermined threat of native Chinook Indians. In 1829, with no significant threat materializing from the Chinook, the initial palisade was abandoned and a new site for the palisade was selected on the river plain known as Jolie Prairie and later as Fort Plain. The Fort Plain site provided open land with rich soils suitable for cultivated fields and pasture, close to the river for access to fresh water and transportation, but above the flood zone. The dense conifer forest to the west and north provided a ready supply of timber, while the freshwater pond near the shore became the nexus for building and other industrial activities.

Fort Vancouver was the headquarters and principal supply depot for the HBC Columbia Department between 1824-1849 and an important center for the Northwest fur trade. It was the initial administrative center of the Puget Sound Agricultural Company, the agricultural enterprise that linked the Hudson's Bay Company outposts to Alaska, the Sandwich Islands (Hawaiian Islands), and points south through the trade of agricultural commodities produced in the Pacific Northwest. It became the western terminus of the Oregon Trail, a destination and supply depot for weary American immigrants, who were supplied with provisions, such as clothing, household goods, and seeds at the direction of Chief Factor John McLoughlin.

The development of Fort Vancouver was directly tied to the availability and location of natural resources on Fort Plain; the forests, prairies, topography, and river playing a role in directing the location and character of both individual landscape features and overall site organization. Fort Vancouver possessed an abundant supply of natural resources required for a successful fur-trading and agricultural operation: a major river and streams for transportation, power, and fresh water; favorable climate and soil for farming; large areas of grasslands for livestock pasture; timber for building material; and plenty of open (non-forested) land for expansion of the fort as development proceeded.

The Fort was the core of the HBC's Columbia Department, which stretched from Russian Alaska to Mexican California and from the Rocky Mountains to the Pacific Ocean. In the 1830s and 1840s, it was the largest Euro-American settlement in the Pacific Northwest, dwarfing Yerba Buena (San Francisco), California, and rivaling New Archangel (Sitka), Alaska. At the height of its development on Fort Plain, 1844-1846, Fort Vancouver included the palisade at its core, with other landscape features radiating out from this center. Cultivated fields, with prairie or pasture beyond, surrounded the palisade to the south, southeast, east and northeast. Directly north and west of the palisade were extensive gardens and orchards.

Further to the west and southwest extended the employee village known as Kanaka or Company Village, where numerous small dwellings and outbuildings housed the Company's employees. The main portion of Kanaka Village was west of the stockade and the river road. Much of the village was located on the relatively flat terrain that sloped slightly from Upper Mill Road to the river. The western boundary of the village was defined by the conifer forest. Detailed information about Kanaka Village remains unclear. Its development probably coincided with the stockade's move to Fort Plain in 1829. The number of dwellings reported in the 1830s and 1840s varied between thirty to fifty structures. From 1849 to 1860, the area was transformed from an

active HBC residential area to the U.S. Army's quartermaster depot. The decline of Kanaka Village began in the late 1840s as employees left the fort in search of gold in California, and by 1850, much of the population had dispersed. This decline was hastened by the arrival of the U.S. Army in 1849 and the beginning of the quartermaster depot. The army development included dwellings, shops, stables, roads, and several buildings rented from the HBC. By 1860, virtually nothing remained of the HBC Kanaka Village, due to both the decline of the Company and the aggressive clearing and demolition of HBC property by the U.S. Army.

Southwest, clustered around a pond and extending to and along the riverfront, were buildings and dwellings supporting the Fort's various enterprises, including boat sheds, tanning pits, cooper's shop, saw pit and salmon packing sheds.

Historical Village roads crossed the land bridge project area along the eastern and northern edges of the pond, with a major north-south road further west of the pond. This road became the southern entrance to Vancouver Barracks (McLoughlin Road) and was lined with trees planted in October of 1882. One of these trees remains south of the railroad berm, west of the entrance to Old Apple Tree Park. A number of these trees remain on USAR property, north of SR-14.

The road system at Fort Vancouver was related to the transportation needs of a fur-trading post and a large agricultural establishment. The circulation system began with primary access, which was from the river to the stockade, and expanded to roads within Fort Plain, and to distant farm plains and overland trade routes. Providing access was critical to the success of a remote trading establishment and early roads and river front access became significant landscape features. Although most of these routes changed after the HBC, many early roads were used by American settlers and contributed to development of the area by the U.S. Army.

Today, some important portions of the historic circulation pattern are still extant. The historic road running north from the stockade's northern gate has been reestablished by the National Park Service. Although the north gate was not the main entrance to the stockade historically, it currently serves as the main pedestrian entrance to the stockade.

In 1849, the U.S. Army established Camp Vancouver on the high terrace above Hudson's Bay Company Fort Vancouver[1]. This became the first U.S. Army post in the Pacific Northwest and served as its headquarters, quartermaster's depot, and arsenal for many years. In 1850, Assistant Quartermaster, Captain Rufus Ingalls, built a number of army structures within the Village, including a prefabricated house for himself. The Army continued to use portions of Kanaka Village into the 20th century as the Quartermaster's Depot. In early 1860, much of what remained of the village was burned or dismantled to make room for changes in U.S. Army activities. The Kanaka Village structures and stables were probably dismantled or burnt in 1866 and do not show on the 1871 Winman map. By 1888, the U.S. Army constructed a magazine and ordnance building just to the northeast of the project area on lands currently managed by the NPS (Erigero 1992:304).

[1] Camp Vancouver was renamed Columbia Barracks in 1850, Fort Vancouver in 1853, and Vancouver Barracks in 1879

Understanding the circulation related to the overall historic landscape is difficult because many of the roads existing in 1844-46 are no longer extant, and/or have not been reestablished. The most important the missing historic routes are the primary access roads from the river to the stockade. Today there is no pedestrian or road access from the river to the stockade due to the significant alteration of the landscape by major highways and the railroad embankment. The lack of connection between the river and the stockade, and the use of an inaccurate main entry to the stockade, compromise the historic scene and neglect the critical relationship between the Columbia River and Fort Vancouver.

In 1906-07, the Spokane, Portland & Seattle Railroad (SP&S) railroad was constructed east to west along the northern edge of the Columbia River, bisecting the Village from the river front. By about 1914, railroad spurs for the Quartermaster's Depot and a World War I Spruce mill ran north off the rail line through the land bridge project area at about the location of the pond. It was used until the end of World War II.

Prior to World War I, the open fields of Vancouver Barracks provided a venue for a number of early aviation experiments and demonstration flights. Notable events included the 1905 dirigible flights between Portland and the Barracks grounds by Lincoln Beachey, and the flights of early aviators such as Silas Christofferson and Charles Walsh beginning in 1910. During the war, the site of the present airfield was covered with the large industrial facilities associated with the Spruce Production Division, which supplied the production of military aircraft. In 1923, following the removal of the World War I era Spruce Production Division structures, an air-training field for the 321st Observation Squadron of the Ninety-Sixth Division of the Organized Reserves was established on the Fort Plain east of the palisade site. For 18 years Pearson Field operated as an intermediate field within the larger framework of Air Corps bases. In addition to Army operations, mail service and fire fighting support teams also operated from the field for brief periods.

In 1914, the offices of the Chief Commissary were located at the western edge of the project area near the Old Apple Tree. The building was constructed ca. 1884 as an ordnance warehouse, converted to a residence, and converted to offices of the Chief Commissary (Chance and Chance 1976:14-15, 29-30). This building was torn down sometime before 1928. During the Great Depression, a Civilian Conservation Headquarters and barracks facility was constructed in the area of the Village north of the project area.

In the mid-1920s, after the Spruce Production plant was removed, the Army developed a military airfield dedicated in 1925 as Pearson Field. Adjacent to the airfield, the site contained temporary buildings and tent camps associated with the post's CCC program and, later, World War II operations as a primary Pacific Theater embarkation camp. Between 1923 and 1941, the airfield figured in several important events in aviation history. In 1924, four Douglas World Cruiser airplanes stopped at the Vancouver field on their way to Seattle, the starting point for the first around-the-world flight, sponsored by the Army. In 1929, a twin-engine ANT-4, *Land of the Soviets*, touring the United States on a goodwill trip unexpectedly landed at Pearson Field when the plane developed mechanical problems. In 1937, pilot Valery Chkalov and his crew completed the first transpolar flight at Pearson Field. They were welcomed to the barracks by

Brigadier General George C. Marshall and their feat is commemorated today by a monument adjacent to the Pearson Air Museum.

Following World War II, when the War Department surplused the area below East Fifth Street, the City of Vancouver received the Pearson Field acreage and quickly combined the municipal and army fields into one larger municipal field. In 1972, the National Park Service purchased from the city the acreage west of East Reserve Street, including the structures associated with the historic airfield, granting the city a 30-year use and occupancy for the airfield. The airstrip was relocated and the aviation right-of-way restrictions removed, allowing for subsequent reconstruction of the remainder of the palisade and other structures.

With NPS approval and technical assistance, the City of Vancouver and the Pearson Field Historical Society developed the new Pearson Air Museum, adaptively reusing the three historic buildings including the remaining hangar and joining it to a newly constructed hangar housing the primary museum exhibit and educational facilities. In 2000, adaptive rehabilitation began on the former pilots' lounge and a weapons storage building to support additional administrative, curatorial, and museum needs. Also, in 2000, the city began the removal of outdated hangar structures from NPS property, with removal of hangar facilities between the museum and the palisade.

ARCHEOLOGY

The aboveground features of the Fort have disappeared, leaving behind one of the richest and historical archaeological sites in the Pacific Northwest. While a high percentage of this resource lies within the authorized boundaries of the Fort, other key features were either destroyed or lie beneath modern twentieth century developments associated with the infrastructure of the railroad and highway system, Vancouver Barracks and Pearson Field, and the Waterfront. Extant or existing subsurface features may include portions of the Village, sections of the waterfront industrial area, St. James Mission, and the second HBC/St. James Mission cemetery.

The land bridge project area is situated within and on the southern margin of the Fort Vancouver Employees' "Kanaka" Village. The Village site could have been used as early as 1827 (Chance 1982:264), and was home to the Fort's working class employees and their families. A diverse community, the Village was comprised of Native Hawaiians, French Canadians, Scots, English, Metís, and Native Americans, representing tribes from across the North American continent (Erigero 1992; Hussey 1957; Thomas and Hibbs 1984). Seasonally, trapping parties delivering furs would swell the population to as many as 1,000 people. Descriptions of the village suggest that there were between 40 and 60 houses, built in a variety of architectural styles, with outbuildings, corrals, fenced gardens, roads, trails, and other features (Hussey 1976: 217-218; Thomas and Hibbs 1984: 45-47). Although rare, historical maps suggest a number of Village and river front structures and a pond that was situated at the southern portion of the Village and extended to a narrow outlet to the Columbia River (Erigero: 1992:151-156: Thomas and Hibbs 1984).

The land bridge project area is associated with the historical pond in two areas: (1) on the east-west running trail and ramp between the BNSF railroad and SR-14 and (2) at the ramp at the

terminus of the bridge and associated trail system north of SR-14. The Bonneville and Mannsfield maps of 1854 show up to three Village houses and two Hudson's Bay Company structures, probably the horse and ox stables, on the edge of the project area. The Harney map of 1859 shows a structure, potentially one of the stables, near or within the project area.

The historical and archaeological background research suggest that archeological resources may be found within the project area that may contribute to the significance of National Register sites 45CL163H, 45CL164H, and 45CL300. The most obvious archaeological feature is the pond that contains rich and stratified deposits of 19th century artifacts related to the HBC and U.S. Army use of the site. Areas within the village and river front complex also contain the potential for very rich deposits of archaeological remains associated with HBC Village houses, stables, and shops. Historical maps suggest that the area east of the pond and south of SR-14 may contain the remains of HBC structures and historical roads.

Since 1947, extensive archaeological work has been conducted at Fort Vancouver NHS, providing information on the prehistoric, 19th and 20th century uses of the site. The following summarizes the previous archeological investigations in are around the land bridge project area.

The first well-documented archaeological research program for the Village began in 1968 and 1969, including work on the edges of the land bridge project area (Kardas 1970, 1971; Larrabee and Kardas 1968). The data and artifacts resulting from these and following investigations provide important data on the life and culture and the acculturation of this ethnically diverse community. Subsequent excavations at the Village site were prompted by the renovation of the interchange of SR-14 and I-5. To mitigate the effects on the Village site by the construction activities, archaeologists conducted excavations in 1974 and 1975. Several of the important features found and investigated were a village dwelling area, a boat building area and separate black smithy, and the historic pond used as a refuse dump for both the HBC and the U.S. Army. A third season of excavations were conducted at the site in 1977 to increase understanding of the palisaded hospital and the HBC boat building area, to determine the eastern boundary of the complex, and to augment the stratigraphic and artifact collections from the pond. In 1980 to 1981, additional archaeological investigation was conducted for the right-of-way of the SR-14 expansion by investigating U.S. Army properties with sites east of I-5 and west of the NPS property line. These test excavations discovered the remnants of the 1850-1851 quartermaster's depot stable, clerks' quarters, an HBC depot corral, and five village dwelling areas.

Studies conducted in 1993-1994 for the undercrossing project directly north of the land bridge project area revealed large amounts of coal from a mid-20th century coal storage facility. A shovel probe in Old Apple Tree Park contained mixed 19th and 20th century remains that may be associated with Building "P", previously studied in 1974 and 1980-81. Remote sensing identified six subsurface features, which were tied to newly discovered or previously identified (Kardas and Larrabee's House 4) concentrations of artifacts. Excavations in the western portion of the undercrossing project area revealed a number of 19th and 20th century features, including two fire-pits that are typologically similar to others found elsewhere that are associated with the HBC. Based on results it appears the western portion of the undercrossing project area, north of SR-14, is disturbed in the upper strata, but did contain intact remains of the HBC village in more deeply buried contexts. The eastern portion of the undercrossing project area contained high

densities of historical artifacts associated with the Village. Due to the results of the 1993 excavations, the northern portion of the undercrossing was relocated to the right-of-way for the SR-14/I-5 interchange.

Between 2001 and 2003, NPS archaeologists performed excavations across the NPS-managed portion of the Village area, many within or near the land bridge project area north of SR-14. At the western end of lower mill road, near the reconstructed entrance gate archeologist found an 80-cm thick deposit of fill, possibly related to the demolition of CCC-era structures or the magazines, including mixed 19th and 20th century artifacts with asphalt, concrete, and coal characterizing the deposits. NPS archaeologists further excavated two test units around the entrance gate, revealing intact deposits under the fill with relatively large numbers of artifacts dating to the 19th century extending to about 130 cm below surface.

In 2003, a number of shovel tests were excavated in and around the pond area including three on the western edge of the same mound of debris discovered at the entrance gate. These contained mostly mixed 19th century and 20th century artifacts to about 30 cm below surface, with only sparse 19th century artifacts in the intact deposits beneath. The area may be the northeastern edge of the pond and/or represent a series of fill episodes related to late-19th and early/mid-20th century U.S. Army activities. Shovel tests excavated within the pond contained dense deposits of mixed 19th and 20th century artifacts in upper levels with pure 19th century deposits of artifacts below about 80 cm below surface. In all three of these shovel tests the excavations were terminated without reaching the bottom of the pond and the depth of pond deposits is unknown.

At the northernmost edge of the land bridge project area a shovel test contained a 20th century sand deposit in its southern half that extended to 63 cm below surface. A similar sand deposit was found nearby to about 40 cm below surface. There were few artifacts in the intact sediments beneath the sand feature in both units.

CONTEMPORARY TRIBAL COMMUNITIES

In spite of the centuries long occupation of the Vancouver, Washington and metropolitan Portland, Oregon areas by American Indians prior to the arrival of Euro-Americans in the early nineteenth century, the closest tribal reservation communities are about 50 miles away from Fort Vancouver. Tribal communities are located in both the states of Washington and Oregon in the form of reservations that are occupied by members of federally recognized tribes. In Washington, these reservation communities include Shoalwater Bay to northwest of Fort Vancouver, Chehalis to the north and Yakama to the northeast. In Oregon, these reservations include Warm Springs to the southeast and the Grand Ronde and Siletz reservations to the southwest. A number of more distant contemporary reservations also have individual members and even constituent groups whose ancestors undoubtedly had connections with the Hudson's Bay Company at Fort Vancouver in the mid-nineteenth century.

The NPS received a scoping letter from the Tribal Historic Preservation Officer of the Spokane Tribe of Indians. The Spokane Tribe's reservation consists of 154,000 acres in eastern Washington, of which 90% is held in trust by the federal government.

In addition to the tribal reservations of federally recognized tribes that are noted above, other tribal communities in the vicinity of Fort Vancouver include members of the Chinook Indian Tribe/Chinook Nation whose acknowledgment as a federally recognized tribe in early 2001 is currently under review by the present federal administration. The Cowlitz Indian Tribe is a contemporary Indian tribe that does not have reservation land because they have only recently been recognized. Their judicially established area of traditional occupancy, on the other hand, is a relatively large area surrounding the Cowlitz River. It is approximately 50 miles north of Fort Vancouver and extends from the Columbia River on the west to the area between Mount Rainier and Mt. St. Helens on the east. The Chinook Nation is another tribe that is essentially landless today. They are a contemporary group of Chinook who are primarily associated with a traditionally occupied area near the mouth of the Columbia River and are not recognized. Although the Chinook do not have reservation lands, they represent a contemporary tribal community that lives among non-Indians in the area surrounding Fort Vancouver. Likewise, in this ethnically diverse area of Washington and Oregon there are dispersed Native American groups that may constitute American Indian or Native Hawaiian communities who have interests in and with enduring historical connections to Fort Vancouver.

TRANSPORTATION AND CIRCULATION

Currently, there is limited non-motorized connection between the Vancouver NHR and the Columbia Riverfront. In the fort area, there is no connection between Discovery Historic Loop Trail (Discovery Trail) and the Columbia River Waterfront Trail. Linking these trails was originally included in the City of Vancouver's urban trail system formed in 1968 to link recreation and historic sites in the city and county. The lack of a connection limits recreational circulation throughout the area.

The project area includes the intersection of SR-14 and I-5. SR-14 is four lane highway that connects I-5 with Interstate 205 to the east. I-5 is the only continuous freeway on the West Coast, connecting Canada and Mexico through the states of Washington, Oregon and California. It provides for high capacity, high speed traffic movement in urban and rural areas. I-5 is a part of the National Highway system, it is a state designated freight route, and is a heavily used roadway. This freeway connects downtown Portland, Oregon to Vancouver, Washington. In general, I-5 is three through lanes in each direction in the Portland/Vancouver metropolitan area. Just south of the project area, at the Columbia River, I-5 provides a critical connection to two major ports, deep-water shipping, up-river barging, two transcontinental rail lines, and much of the region's industrial land. For residents in the Portland and Vancouver area, the I-5 Bridge provides one of two crossings of the Columbia River for transit and automobiles. It connects the communities of Portland and Vancouver for work, recreation, shopping and entertainment purposes. An average of 125,000 trips are made across the I-5 Bridge every day (WSDOT 2005). The I-5/SR-14 interchange experiences traffic during peak weekday commute times (6:30 a.m. to 8 a.m. and 3:30 p.m. to 6 p.m.).

The Burlington Northern Railroad operates an important rail line in the project area. The line runs east-west along the Columbia River in Clark County connecting to Spokane and other eastern locations. A number of lines branch off from the Burlington Northern to serve the Port of Vancouver. These lines connect in Vancouver and both carry significant freight traffic

volumes. The primary goods moved include lumber and wood products, pulp and paper, metallic ores, and farm products. According to the Washington State Freight Rail Plan-1991 Update, both of these lines carried over 20 million gross ton-miles per mile in 1989 (JHK & Associates,1993).

Pearson Airfield operates a small plane runway and maintenance facility on approximately 134 acres in the project vicinity. The City of Vancouver owns approximately 62 acres of the eastern portion of the site and the remaining 72 acres, the western portion were sold by the City of Vancouver to the NPS in 1972 with reserved 30-year "use and occupancy" of the property allowing for continued operations of the airport until 2002 and development of a new airfield facility at another county location. In 1996, Congress extended use of the airfield until 2022. During this extension period general aviation uses may continue subject to FAA approval. The facilities on NPS land include a runway, a parallel taxiway, the historic aviation museum buildings (Pearson Air Museum), and a Russian monument. The Airfield has one paved runway and conducts general aviation service. The project area is about 2,000 feet or about a third of a mile from the end of the paved runway.

VISITOR EXPERIENCE

Over the past ten years, Fort Vancouver NHS has received an average of 370,000 visitors per year (1994-2003) and recent figures estimate approximately 510,383 during fiscal year 2003-2004. Overall visitation for the last ten years has shown a slow steady increase of approximately 3% to 5% per year. Inside the Fort, visitation has been steady at approximately 65,000 to 70,000 per year. July has the highest visitation due to the Fourth of July Celebration followed by August, May and June. The lowest visitation occurs in the months of January and December.

Overall visitation figures do not include use of the grounds after evening closure of the park, general recreational use, or use of the waterfront. There are also a steady flow of local users that walk, jog, bike, or otherwise use the site, especially along the waterfront trail that serves regular recreational users including locals that live near the site. Including these users overall visitation numbers would be expected to increase by 25% to 40%.

Fort Vancouver NHS programs interpret the Hudson's Bay Company activities including the fur trade, lumbering, milling, blacksmithing, coopering, shipbuilding, salmon preserving, and agriculture. The lifestyles of the workers, in particular those living in the Village west of the Fort, are important stories, as is the connection of the Fort to the Columbia River. NPS staff provide interpretation to educate visitors about on-site archaeology activity when occurring at the Village or at the Waterfront. The archaeology program at Fort Vancouver NHS includes archaeology walking tours, curatorial tours of reconstructed buildings, and collection facility tours. Archaeological seminars and events are conducted and the archaeology field school is a partnership between Portland State University and NPS, hosts college students and offers lectures. A walking tour is provided using waysides and NPS interpreters are available in Fort Vancouver NHS and adjacent areas within the Reserve.

AESTHETIC RESOURCES

Historically, the natural landscape of Columbia River's north shore was a mosaic of plains, coniferous forests, streams and lakes, with the Cascade Mountains visible in the distance. The Fort, the heart of the Hudson's Bay Company operations, was located on a low-lying river plain called Fort Plain that was six miles upriver from the confluence of the Columbia and Willamette rivers. Many of the natural features of the site have been greatly impacted by development; some have disappeared entirely. The large coniferous forest that defined the western and northern boundary of Fort Plain, and the pond located in the riverfront area, no longer exist. The overall spatial relationship and connection between the reconstructed stockade and the river, which is critical to understanding the historical context for Fort Vancouver, has been severed.

The primary aesthetic resources in the project area relate to the reconstructed fort and historic Vancouver Barracks District. These features create a historic setting reminiscent of Fort Vancouver at the height of its development in ca. 1846 and subsequent establishment of U.S. military presence. The reconstructed fort includes the Chief Factor's House and kitchen, bake house, wash house, blacksmith's shop, Indian trade shop, bastion, and the fur store. Other features include an interpretive orchard and garden, located north of the stockade, and the restored historic north gate road. Wood post and rail fences, a style used during the historic period, are used to enclose most of the stockade.

The project area is not visible from inside the fort walls, but is visible outside the fort and from the fort bastion. The project area varies little with subtle shades of green consisting of unmowed grasses, weeds, vetches, large masses of blackberries and scotch broom giving way to the cars of the highway and the dark railroad berm. Some fruit trees have been discovered, as well as two wild heirloom climbing rose bushes. The trees and shrubs appear to be remnants of the plantings associated with the Civilian Conservation Corps development at Vancouver Barracks in the late 1930s and early 1940s. Historic features add to the visual quality of the project area, including the historic pathways, entrance gate, and wood fences that extend northwest toward the village site. The 2003General Management Plan/Environmental Impact Statement proposed reestablishing the historic landscape including pathways, roads, and fences in much of the Village. Reconstruction was proposed for two village residences and associated gardens to evoke the typical scale and use of structures within the Village. The document proposed reconstructing William Kaulehelehe's (Kanaka Billy's) residence with furnishings.

The I-5 Bridge over the Columbia River dominates the skyline and the twentieth century developments along the waterfront are visible on both sides of the Columbia River. Overall, the visual resources in the project area are highly impacted by cultural modifications and lack variety or uniqueness in color, contrast, landform, and vegetation.

Along the Columbia River Waterfront, cottonwoods, willows, and alders dominate the steep bank and the adjacent park is landscaped by the City of Vancouver and includes lawn and planting beds with ornamental trees and shrubs. In addition, visual resources in the greater area that are part of the affected environment include views of Mount Hood to the Southeast.

PARK OPERATIONS

There are between 20 to 25 staff working at Fort Vancouver NHS, including facility management staff, cultural resource specialists, administration, and interpreters. The staff's capabilities to assume new responsibilities are limited. The City of Vancouver manages and maintains boundary roads, sidewalks, paths, and landscaped areas along the park borders.

GEOHAZARDS/GEOLOGIC RESOURCES/SOILS

About 75 miles off the coast, on the floor of the Pacific Ocean, is a major fault (subduction) zone where two plates of the Earth's crust meet. Along this zone, the Juan de Fuca Plate slides eastward beneath the North America Plate. Inland from the coast about 100 miles, hot materials rise from the subducted Juan de Fuca Plate to the surface of the North America Plate, where they build the volcanoes of the Cascade Range, including Mount Hood and Mount St. Helens. The Portland-Vancouver area is located on the highly stressed region of the Earth's crust between the subduction zone and the Cascade Range. Consequently, the area is susceptible to earthquakes on the numerous faults caused by the stress. These faults, however, are difficult to find and study because they are often concealed beneath sediments deposited by the Willamette and Columbia Rivers or hidden by vegetation and urban development.

Scientists believe that the East Bank Fault, the Portland Hills Fault, and other faults with similar trends in the Portland-Vancouver metropolitan area form a broad zone of faulting called the Portland Hills Fault Zone. The East Bank Fault appears to be the longest fault in the zone and may pose a seismic hazard to the Portland/Vancouver community (Figure 5). Although no evidence has yet been found of past strong earthquakes on this fault, its length suggests that it could produce shocks with magnitudes greater than 6 (USGS 1995).

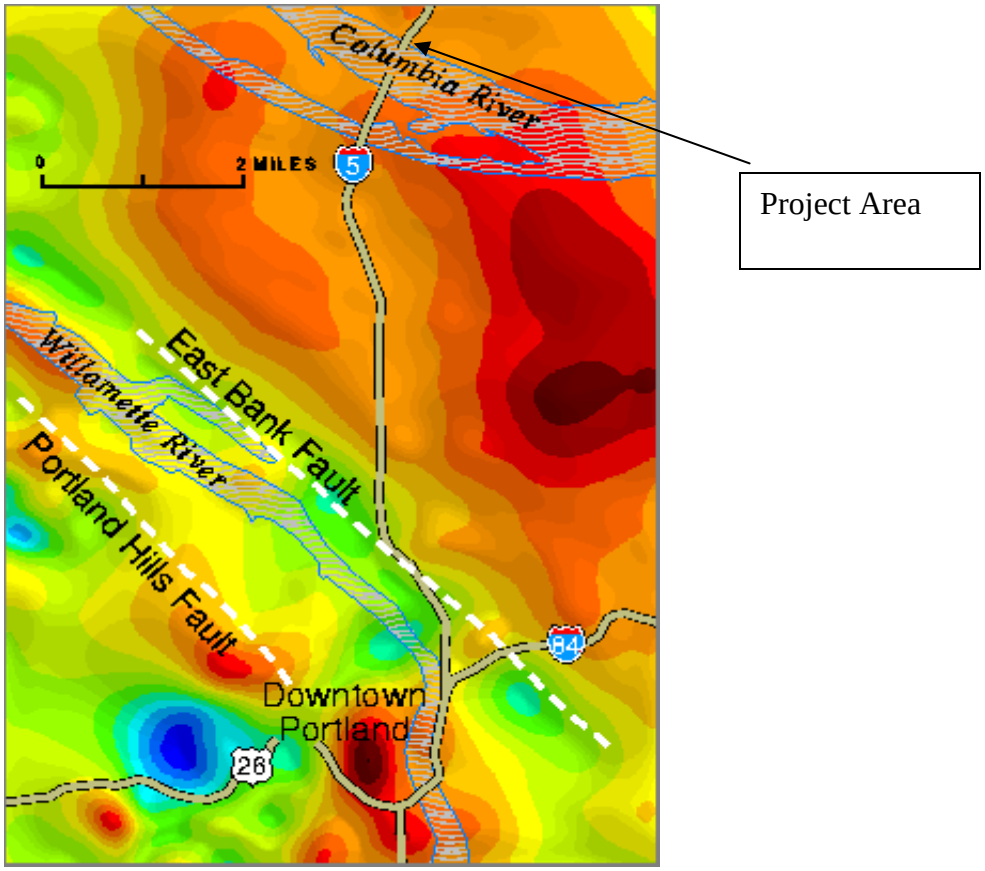


Figure 5: Major Known Faults in the Portland-Vancouver Area (USGS, 1995)

Fort Vancouver NHS is located in the Willamette-Puget Trough, a geographic basin formed by the Cascade and Coast ranges. The topography of Fort Vancouver NHS has been shaped by floodplain deposits from the Columbia River, forming low-lying bottomlands and a series of alluvial plains and terraces. The area within the park slopes gently from the north boundary down to the river, with elevations from 102 feet mean sea level at the north, to 24 feet mean sea level at the river.

Clark County, Washington, exhibits traces of its geologic history including repeated inundation by fluctuating seas during glacial epochs, sedimentary processes of the Columbia River, volcanic activity, and periodic earthquakes. Fort Vancouver NHS is situated on alluvial deposits that underlie the southwestern third of Clark Country and shape the plains and terraces of the park. These alluvial deposits are further categorized into three general types:

- Alluvial fan and associated deposits have accumulated along streams and tributaries to the Columbia River. They consist of fine-grained sand and gravel. In the bottomlands these deposits are an important source of groundwater.

- Terrace deposits are distinctive because they are re-worked portions of the Troutdale Formation and contain very coarse gravels in a sandy matrix.

- Recent alluvium deposits are confined to the floodplains of the present streams and creeks. They consist primarily of silt, sand, and gravel.

The soils associated with the project area have been mapped as Lauren gravelly loam, 0-8% slopes, a very gravelly loam formed in mixed alluvium (McGee 1972). The floodplain and the rising ground behind it consist of a fairly uniform gravelly loam 12 inches or more in depth over alluvial gravel. Surface runoff is quickly absorbed by these soils.

WATER RESOURCES

The north shore of the Columbia River forms approximately 3,600 feet of the southern boundary of the park. Water quality information for the Columbia River and its tributaries within the general vicinity of the park has been collected by the Oregon Department of Environmental Quality and the Washington Department of Ecology and are summarized in a report entitled *Baseline water quality data inventory and analysis: Fort Vancouver National Historic Site* (NPS Water Quality Division 2000). Increased water temperatures, high levels of dissolved nitrogen, alga growth, and high bacteriological counts, have degraded the water quality of the Columbia River. These pollutants are primarily the result of natural processes, but can also be attributed to discharges by construction, industrial, agricultural, and recreational activities. No other surface watercourses exist within the park.

ENVIRONMENTAL IMPACTS

METHODOLOGY FOR ASSESSING IMPACTS

The National Environmental Policy Act (NEPA) requires that environmental documents disclose the environmental impacts of proposed federal action, reasonable alternatives to that action, and environmental effects that cannot be avoided should the proposed action be implemented. This section analyzes the environmental impacts of project alternatives on Visitor Experience, Historic Landscape, Park Operations, and Water Smell and Taste at the Facility Management Building. These analyses provide the basis for comparing the effects of the alternatives. NEPA requires consideration of impacts including the context, intensity, duration, type, and measures to mitigate impacts.

Context of Impact
Impacts are considered at their local, regional, or national context as appropriate.

Intensity of Impact
Intensity is a measure of the severity of an impact. The intensity of an impact may be:

- *Negligible*, when the impact is localized and not measurable or at the lowest level of
- detection;
- *Minor*, when the impact is localized and slight but detectable;
- *Moderate*, when the impact is readily apparent and appreciable; or
- *Major*, when the impact is severe and highly noticeable.

Duration of Impact
Duration is a measure of the time period over which the effects of an impact persist. The duration of impacts evaluated in this EA may be one of the following:

- *Short term* impacts are those that can be reversed relatively quickly. Short term impacts typically occur only during construction and last less than one year; or
- *Long term* impacts are those that are reversed more slowly. Long term impacts last one year or longer.

Type of Impact
- *Adverse* impacts are those that change the affected environment in a manner tending away from the natural range of variability.
- *Beneficial* impacts are those that change the affected environment toward the natural range of variability.

- *Direct* impacts include such impacts as animal and plant mortality, damage to cultural resources, or creation of smoke, that occur at the time and place of the action.
- *Indirect* impacts are those that occur at a different time and/or place than the action. Indirect impacts include changes such as species composition, structure of the vegetation, or range of

wildlife. Indirect impacts could occur off-unit such as erosion-related impacts, or general economic conditions tied to park activities.

- *Cumulative* impacts are those impacts on the environment that result from the incremental (i.e., additive) impact of direct and indirect impacts when added to other past, present, and reasonably foreseeable future actions regardless of who undertakes such actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

Mitigation of Impacts

- *Avoid* conducting management activities in an area of the affected environment.
- *Reduce* the type of impact to an affected environment.
- *Minimize* the duration or intensity of the impact to an affected environment.
- *Repair* localized damage to the affected environment immediately after an adverse impact.
- *Rehabilitate* an affected environment with a combination of additional management activities.
- *Compensation* of a major long-term adverse direct impact through additional strategies designed to improve an affected environment as much as is practical.

Projects Considered in Cumulative Analysis

NPS General Management Plan/Environmental Impact Statement

NPS prepared a GMP/EIS for Fort Vancouver NHS in 2003- 2004 that included plans for adaptive reuse of historic structures, reconstruction of historic structures and landscape, expansion of interpretive programs and visitor services, parking construction, trails construction and maintenance. These projects are included in the cumulative impact assessment.

Columbia River Crossing Project

In 1998, the Washington State Department of Transportation (WSDOT) and Oregon Department of Transportation (ODOT) formed a bi-state partnership to study alternatives for the I-5 Interstate Bridges. Two studies resulted from the initial work: the Portland/Vancouver I-5 Trade Corridor Freight Feasibility and Needs Assessment Study Final Report, completed in 2000, and the Portland/Vancouver I-5 Transportation and Trade Partnership Final Strategic Plan, completed in 2002. This bi-state work included a variety of corridor-wide improvement and traffic management recommendations. One key recommendation called for adding capacity over the Columbia River with a replacement bridge or by supplementing existing I-5 bridges to ease impacts of bottlenecks on local travel and interstate commerce. Another recommendation called for considering high-capacity transit improvements in the area of the I-5 Interstate Bridge. WSDOT and ODOT are focusing efforts on these recommendations in the Columbia River Crossing Project. Additional study recommendations regarding freight rail capacity, land use, and transportation demand and system management are being addressed in other venues. (WDOT, March 2005).

The I-5 Interstate Bridge across the Columbia River is actually two bridges side-by-side, built in 1917 and 1958. A second river crossing, the I-205 Glenn Jackson Bridge, opened in 1982. Together, the two crossings connect the greater Portland-Vancouver region, carrying over 260,000 trips back and forth across the Columbia River every day. Growth in the region, and in border-to-border commerce, is straining the capacity of the two crossings.

Impairment

In addition to determining the environmental consequences of the preferred and other alternatives, NPS *Management Policie*s (NPS, 2001) and Director's Order-12, *Conservation Planning, Environmental Impact Analysis, and Decision-making*, requires analysis of potential effects to determine if actions would impair park resources. The fundamental purpose of the National Park System, established by the Organic Act and reaffirmed by the General Authorities Act, as amended, begins with a mandate to conserve park resources and values. NPS managers must always seek ways to avoid or minimize to the greatest degree practicable adverse impacts on park resources and values. However, the laws do give the NPS management discretion to allow impacts to park resources and values when necessary and appropriate to fulfill the purposes of a park, as long as the impact does not constitute impairment of the affected resources and values. Although Congress has given the NPS management discretion to allow certain impacts within parks, that discretion is limited by the statutory requirement that the NPS must leave park resources and values unimpaired, unless a particular law directly and specifically provides otherwise. The prohibited impairment is an impact that, in the professional judgment of the responsible NPS manager, would harm the integrity of park resources or values, including opportunities that otherwise would be present for the enjoyment of those resources or values. An impact would more likely constitute an impairment to the extent it affects a resource or value whose conservation is:

- necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park;
- key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park; or
- Identified as a goal in the Park's General Management Plan or other relevant NPS planning documents.

In this EA, impairment is evaluated for cultural resources. The NPS does not make impairment determinations for Visitor Experience, Park Operations, or Transportation and Circulation. Impairment findings are not included for Geologic Resources, Water Quality, or Aesthetic Resources because these resources do not meet the criteria identified above for Fort Vancouver NHS.

IMPACTS OF PREFERRED ALTERNATIVE

CULTURAL RESOURCES

The Area of Potential Effect (APE) includes the area associated with the bridge and the trails/ramps that access it on both the north and south side of SR-14. The APE for subsurface impacts to archeology is estimated at 8.5 acres (3.4 ha). The historical background research identified three historic properties in the Area of Potential Effect: Fort Vancouver National Historic Site (45CL163H), the Old Apple Tree (45CL164H), and Kanaka Village (45CL300). The Area of Potential Effect could contain important archaeological remains of the HBC and U.S. Army periods, including areas associated with the ca. 1827-1866 HBC Village and structures near a historic pond.

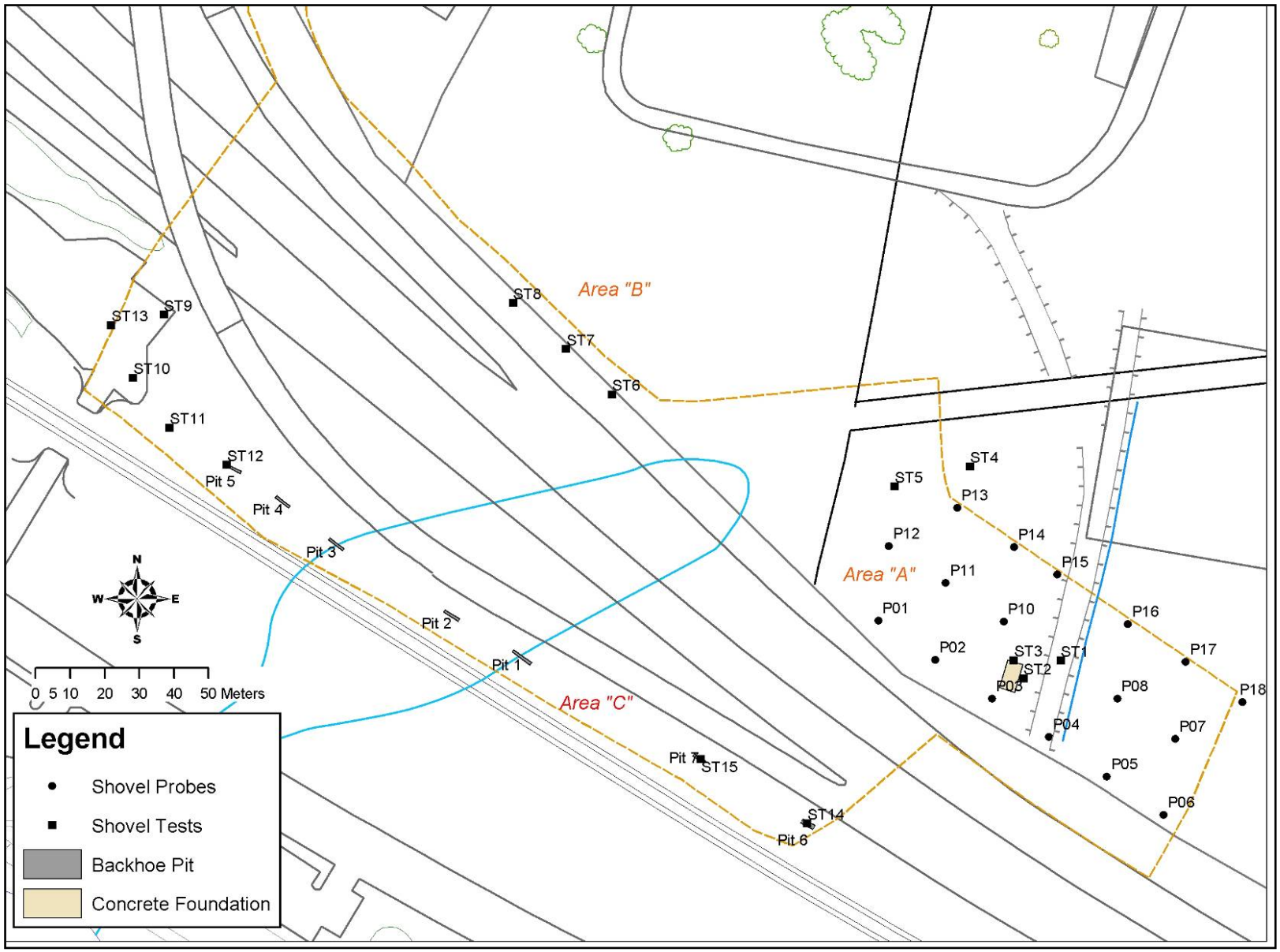
An archaeological study was conducted for the Preferred Alternative to comply with Section 106 of the National Historic Preservation Act and the National Environmental Policy Act (NEPA). Three sites within the project area, identified as "A", "B", and "C", had not been previously tested and were investigated to evaluate the potential for subsurface archaeological remains in intact deposits that contribute to the significance of one or more of the historic properties. In addition, the depth of fill and likelihood of intact cultural remains were evaluated in areas previously tested south of SR-14 and north of the Burlington Northern and Santa Fe (BNSF) railroad (Figure 6).

Area "A" was defined east of the HBC Village and north of SR-14. The test excavations in Area "A" did not discover subsurface cultural deposits that contribute to the significance of Fort Vancouver National Historic Site. While there were a number of early to mid-20th century features in the project area, including the remnants of a road and a concrete slab foundation, these were judged to be not significant features.

Area "B" was situated in the northern portion of the SR-14 right-of-way and south of Fort Vancouver National Historic Site within the Village area. Testing did not identify significant, intact historical archaeological remains and there appears to be at least 50 cm of fill containing mixed 19th and 20th century artifacts across most of this area. While it is possible that significant historical features associated with the 19th century HBC Village or the U.S. Army Quartermaster's Depot could be present in pit or shaft contexts below the fill, it is unlikely that if a trail is constructed in this area that it will extend below the fill.

Area "C" was defined as that portion of the project area south of SR-14 and north of the BNSF railroad tracks. The two backhoe pits and five shovel tests excavated in the western portion of the area found disturbed sediments associated with the demolition and/or construction of the original route of the highway. As for Area "B", it is possible that some historical deposits associated with the HBC Village in pit or shaft features are below the disturbance. The results of the testing indicate that at least the upper 60-70 cm of the profile appears to be mixed fill.

Figure 6: Recent Archeological Investigations



Three Area "C" backhoe pits were excavated on the margins and within the suspected location of the historical pond site. It is deemed likely that the pond deposits are still intact underneath the fill layers. There are at least 3.8 m of fill over the pond with few historical artifacts and no integrity. If the artifact-rich pond deposits are still intact, they are below this fill.

Two backhoe pits excavated east of the stockaded hospital (Operation 19) within Area "C" encountered intact sediments and two shovel tests were excavated in the base of these units. These units encountered an intact 19th century HBC Village/Riverside Complex component and a late protohistoric/prehistoric component. Both components appear to contain a sufficient number and variety of artifacts to comprise important archaeological deposits. The intact deposits extend from at least the eastern edge of the location of the stockaded hospital (Operation 19) and could extend 25 m north to the location of Operation 27 (a HBC habitation site within the existing right-of-way of the highway). It is probable that these deposits extend east of the project area and extend into the right-of-way for the BNSF Railroad.

Results of the background research and archeological testing suggested that the project may adversely effect Kanaka Village (45CL300), but the effects of the project could be mitigated through data recovery. South of SR-14, intact deposits associated with the pond are believed to be present, but are deeply buried under fill from the highway and the railroad. It is recommended that subsurface excavation within the known area of the pond south of SR-14 be restricted to the upper 3.8 m below the current ground surface. If it is deemed necessary to excavate sediments within the known area of the pond below 3.8 m below ground surface, then an archaeologist should monitor this ground disturbance to ensure that intact archaeological deposits associated with 45CL300 are not inadvertently destroyed.

The southeastern portion of the project area within 45CL300 contains intact and significant archaeological sediments associated with at least two components – the prehistoric/protohistoric period and the HBC period. These deposits are significant under Criteria d of NHPA because information important in the prehistory and history of the Vancouver National Historic Reserve may be revealed. Proposed excavations below the fill that disturb these deposits should be treated through data recovery excavations. These excavations should be conducted on a portion of the intact cultural deposits that would be destroyed to collect a scientific sample that can be used to address some of the research questions and prospects noted above. Data recovery treatment will resolve the adverse effect to 45CL300 caused by the destruction of a portion of the archaeological site.

It appears the project would **not** have an adverse effect on Fort Vancouver National Historic Site (45CL163H). North of SR-14, within the park, the pond is known to contain dense deposits of 19th century artifacts dating to the Hudson's Bay Company and U.S. Army periods. Based partly on the preliminary results of the archaeological investigation, the land bridge design has been shifted to the east in this area. A small area of the northern and eastern edge of the pond area will be covered by fill from the project and there will be some ground disturbing actions associated with the installation of piers for an elevated boardwalk over the pond area. The lower levels of the pond deposits are intact and significant under Criterion d of National Register eligibility, as they are likely to yield information important in the history of the Vancouver

National Historic Reserve. However, the proposed pier excavations will not intrude into these intact, significant archaeological deposits. Further, the pier excavations will be monitored to ensure that they do not disturb intact, significant archaeological resources. Areas of the pond covered by fill will be preserved in-place for future study. East of the Village site, in Area "A", archaeological deposits were sparse and these do not contribute to the significance of 45CL163H.

It appears the Preferred Alternative would **not** have an adverse effect on the significance of the Old Apple Tree (45CL164H) or that portion of the Kanaka Village site (45CL300) that is situated at the eastern edge of Old Apple Tree park and north of SR-14. Archaeological deposits associated with the eastern edge of Old Apple Tree park and related portions of the HBC Village and U.S. Army's Vancouver Barracks site (45CL300) were highly disturbed or too sparse to indicate an intact or significant archaeological deposit. Fill here extended to at least 60 cm below surface. Likewise, the upper layers of 45CL300 north of SR-14 investigated as Area "B" did not contain significant archaeological deposits with disturbed fill to at least 50 cm below surface. While it is possible that pits and other shaft features from the historic-period are present below the fill, proposed subsurface excavations associated with the project would not likely extend beneath this disturbance. If excavations extend below the fill in these areas work should be monitored by an archaeologist to ensure that intact archaeological deposits are not inadvertently destroyed.

It is **not** expected that human remains will be found within the project area. However, human remains have been found outside of the project area within Vancouver National Historic Reserve. If human remains are encountered during construction, work in the vicinity will immediately cease, and interested parties, including American Indian tribes and Native Hawaiian organizations will be notified as part of the Native Americans Graves Protection and Repatriation Act (NAGPRA) process and consultation under Section 106 of the NHPA.

Cumulative Impacts

The Columbia River Crossing project is a reasonably foreseeable project that would include large scale construction and possible adverse impacts to underground archeological resources. Should appropriate steps not be taken to recover the archeological resources in the proper fashion in either project, the Preferred Alternative and I-5 Bridge Crossing project could lead to moderate to major impacts to cultural resources. Steps have been included in the land bridge project to ensure local to regional direct long term adverse impacts are reduced to a moderate level and it is presumed that the I-5 project would likewise reduce potential adverse impacts to cultural resources.

Conclusion

Local to regional direct and potential cumulative long-term moderate adverse impact to one archeological site listed on the National Register. Archeological resources could be affected during ground disturbing activities associated with construction or buried further by fill material. Stipulations of the MOU being completed in compliance with Section 106 of the National Historic Preservation Act would result in identification of archeological resources and in mitigation of adverse impacts related to construction. Data recovery would benefit the

understanding of the history of the site. The Preferred Alternative would not harm the integrity of the resource nor result in impairment to the cultural resources of Fort Vancouver NHS.

TRANSPORTATION AND CIRCULATION

The Preferred Alternative would result in long term moderate beneficial impact on a local non-motorized circulation. The land bridge will establish the multi-use Discovery Trail (Figure 7), a loop trail linking the reconstructed Fort and the Vancouver Barracks areas of the Reserve to the Fort Vancouver Waterfront. The proposed route will follow the existing Columbia Waterfront Trail along the river, north through Old Apple Tree Park and over a proposed pedestrian overpass across SR-14 and the railroad. It will continue along the western edge of the NHS in the Village and will connect to East Fifth Street. The proposed trail will run adjacent to East Fifth Street along the north side of the road past Pearson Air Museum to East Reserve Street where it will split to continue north or eventually turn south to Columbia Shores Drive and the Waterfront. The Discovery Trail is part of the city of Vancouver's urban trail system formed in 1968 to link recreation and historic sites in the city and county.

The project will allow non motorized transportation between the Fort Vancouver Waterfront and the Village Area of Fort Vancouver NHS. Part of the vision and implementation of the *City of Vancouver Central Park Plan* in the late 1970s involved construction of a landscaped greenbelt along the Columbia River on federal property. The waterfront is a popular recreational resource for the visitors and locals jogging in the area. Non-motorized access to the Fort Vancouver Waterfront from the Fort and Vancouver Barracks would beneficially impact pedestrians, bikers, joggers, and other recreational users throughout the City of Vancouver. When SR-14 was originally constructed, funding was included for a pedestrian overpass to link Fort Vancouver to the waterfront. However, due to differences in design, the project was never completed. The Preferred Alternative recreates this important link for non-motorized transportation.

The Preferred Alternative would result in local short term minor to moderate adverse impacts to vehicle traffic in the I-5- SR-14 interchange area. One lane in each direction of SR-14 will be intermittently closed to allow for safe construction. In addition, the project will generate vehicle trips, including trucks hauling materials and construction employees coming and going to the job site. It appears this section of road currently experiences traffic during commute hours and the Preferred Alternative could result in increased traffic congestion in the I-5/SR-14 Interchange area.

Figure 7: **Discovery Trail Loop:** **Red dots show existing trail and Yellow dots show proposed (Source: City of Vancouver)**

Analysis indicates that the land bridge will have local long term negligible impacts to the traffic flow on SR-14. The size, scale, mass, and appearance of the land bridge from the roadway will be similar to a standard freeway overpass. The color will differ because of the vegetated surface yet vegetation would likely be small scale and not be distracting from the roadway. The structure is designed with a cross-hatch pattern along the underside of the bridge similar to that of a Native American basket weave pattern.

The Preferred Alternative would not impact alternatives for improvements proposed by the Washington State Department of Transportation (WSDOT) including interchange ramps from SR-14 to I-5. WSDOT developed eight preliminary alternatives for improving the intersection, with one alternative that included new ramps connecting from SR-14 to I-5. Future improvements to the I-5/SR-14 interchange connection are not limited by the construction of the

land bridge because potential future plans to expand the SR-14-I-5 interchange have been considered in design.

The Preferred Alternative would also result in local long term negligible to minor adverse impacts to air transportation at Pearson Field from the structure's proximity to the airfield and from the potential for increased visitation. In addition, construction cranes could lead to local direct short term minor adverse impacts to the flight patterns at Pearson Airfield. The structure has been designed to avoid impacts to the glide slopes of planes approaching Pearson Air Park. The scoping letter received from the Federal Aviation Administration (FAA) states the project will require concurrence from the FAA. The project team is working with the FAA to meet appropriate standards for air safety. There may be an increased potential for pedestrian intrusion onto the landing field because the land bridge may attract a greater number of visitors to the site. The Reserve partner agencies will maintain close communication with the Pearson Airfield staff and if necessary, work with airfield to develop effective measures to prevent intrusion that could include warnings posted in the Fort Vancouver NHS Visitor Center, low impact signage adjacent to the airfield, and possibly historically appropriate fencing.

The Preferred Alternative may result in local long term negligible to minor impacts to the Burlington Northern Santa Fe Railroad. The land bridge is designed along the embankment fill for the Burlington Northern Santa Fe Railroad and the structure would not degrade the railroad berm nor interfere with railroad traffic. Additionally, the structure would be fenced along the perimeter with the railroad however, more visitors may be attracted to the area, increasing the risk of railroad/pedestrian incident. The impact is considered minor because effective measures, including fencing, are part of the project.

Cumulative Impacts

The I-5 Bridge Crossing Project is in the planning stages and a Preferred Alternative has not yet been selected. Cumulative impacts to vehicle, rail, and air traffic could occur if both projects were under construction at the same time, however this scenario is unlikely and it is expected the land bridge project would be completed prior to the start of I-5 Bridge Crossing Project.

Conclusion

The Preferred Alternative would result in local direct long term moderate beneficial impact to non-motorized circulation. Also, local direct short-term minor to moderate adverse impacts to vehicle traffic in the I-5/SR-14 interchange due to construction traffic and lane closures. Construction cranes could lead to local direct short term minor adverse impacts to air transportation at Pearson Field. The Preferred Alternative would also result in local direct long-term negligible to minor adverse impacts to air transportation at Pearson Field and railroad transportation.

VISITOR EXPERIENCE

The design incorporated exhibits that will educate and visually reinforce the interpretive themes both for the visitor crossing on the bridge and by drivers traveling along SR-14. The interpretive

elements on the structure will lead to greater understanding of the living history of Fort Vancouver. The land bridge will integrate interpretive panels, representative plantings, and view points that will benefit public understanding and imagination of the importance of Fort Vancouver to the Northwest region (Figure 8). The structure will help tell the story of the region, from the Lewis and Clark through the U.S. Army presence. In addition, the land bridge will reconnect the land to the river physically through the trail and visually from the three viewpoints. The structure will bridge the past to the present. The land bridge includes architectural features designed to enhance the visitor experience. An undulating trellis is proposed to cover segments of the walkway, a basket weave pattern is integrated into the design to reflect the creativity of native peoples, and overlooks are designed to capture vistas of the river and fort.

Construction could lead to local short-term minor adverse impacts to visitors from construction restricting access to Old Apple Tree Park and certain areas of Fort Vancouver NHS. During construction, visitors would be excluded from the construction and staging areas near the project site and Old Apple Tree Park. Closures could last up to 18 months and could adversely impact the experience of visitors by temporarily reducing opportunities for enjoyment.

Cumulative Impacts

The Preferred Alternative would not result in cumulative impacts related to Visitor Experience.

Conclusion

Construction could lead to local short-term minor adverse impacts to visitors from restricted access to Old Apple Tree Park and certain areas of Fort Vancouver NHS. The Preferred Alternative would result in a direct local to regional long term moderate beneficial impact to Visitor Experience.

AESTHETIC ENVIRONMENT

The project has the potential to result in direct and indirect long term minor to moderate adverse impacts to the historic setting. The historic setting is currently impacted by the industrial elements of the area including the railroad, highway, and I-5 Bridge. The land bridge would be visible from the bastion, a main viewing point from the palisade, but would not be visible from inside the stockade because of the height of the walls. Although currently impacted, the structure would add an additional non-historic structure to the historic setting. The land bridge would be a large structure that may distract from the palisade. The height and mass of the structure could diminish the NPS reconstructions including the eight village houses that are proposed for construction. The scale of the bridge could overwhelm the village scene. Village structures are proposed for a single story with a roof pitch of 15 to 18 feet and a few of the structures could be constructed starting the summer of 2005. The color, shape, and alternating pattern of vegetative types, such as flowering trees, on the land bridge structure could contrast to the surrounding landscape dominated by grasses.

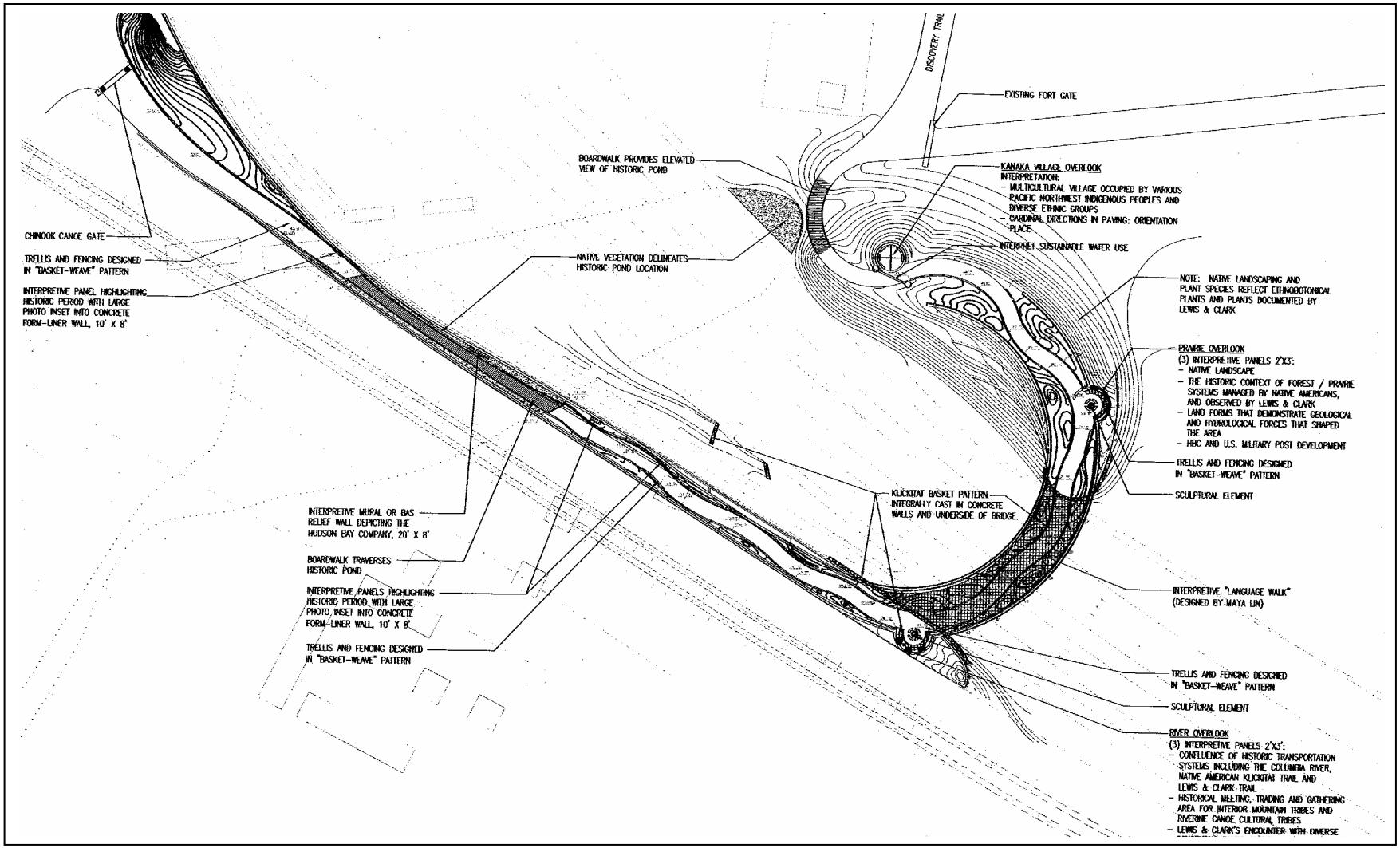


Figure 8: Interpretive Elements of the Land Bridge Structure

In addition, the landing of the structure on the fort side may result in minor changes to the elevation of the historic north-south road. The structure does not meet the north south road at grade, it is about two to three above the grade of the historic road and the road may be raised to meet the structure diminishing the historic quality of the alignment. The grade is required to meet ADA standards.

The project would also result in local direct long term minor to moderate beneficial impact to the visual resources. The viewpoints included in the design would add opportunities for residents and visitors to view the visual resources of the area. The three overlooks included in the project will provide views of the Columbia River, Fort Vancouver, and of the land bridge structure. The height of the structure overlooking the relatively flat plain would enhance the views, greatly improving opportunities to visually understand the connection between Fort Vancouver NHS, Vancouver NHR, and City of Vancouver to the Columbia River.

Cumulative Impacts

Without specific plans it is difficult to evaluate the potential cumulative impacts of replacing the I-5 Bridge along with construction of the land bridge. Should the I-5 Bridge be placed directly adjacent to the land bridge it has the potential to increase adverse impacts to the historic setting and reduce the beneficial impacts to visual resources.

Conclusion

Local direct, indirect, and possibly cumulative long term minor to moderate adverse impacts to the historic setting and local direct long term minor to moderate beneficial impact to the visual resources.

PARK OPERATIONS

Because of existing budget challenges, NPS does not have the operational budget or staff to maintain or secure a new facility such as the land bridge. As part of the Preferred Alternative, the City of Vancouver would assume responsibility for maintenance and security. The impact to NPS operations would be minor and involve maintenance and security coordination, consultation, and emergency assistance.

Cumulative Impacts

The Preferred Alternative would not result in cumulative impacts related to park operations.

Conclusion

The Preferred Alternative would likely result in local direct long term minor adverse impact to park operations from increased facility management and security responsibilities.

GEOHAZARDS/GEOLOGIC RESOURCES/SOILS

The structure is designed to the highest level for seismic safety (Uniform Building Code- Zone 4) reducing the potential for failure in an earthquake and reducing impacts to local direct long term minor adverse impacts.

Geologic resources, including soils would be displaced and large amounts of fill would be imported to construct the Preferred Alternative, leading to a local direct long term minor adverse impact to geologic resources. The project area does not contain unique geologic features. Extensive grading would be required to construct the foundation for the land bridge. Grading in the area would have a local direct long term negligible adverse impact because the soils are previously graded. The placement of fill will have a local direct long term minor adverse impact because new soils may be imported to fill the ramp area and existing soils will be compacted to provide a stable surface.

Cumulative Impacts

Depending upon the selected alternative for an alternate I-5 bridge crossing, the Preferred Alternative could lead to local long-term minor cumulative adverse impacts to geohazards and soils. The I-5 structure would also likely be constructed to the highest standards for earthquake protection however, introducing additional structures in the area does increase risk. In addition, construction of an alternative I-5 bridge would also likely displace large quantities of soil.

Conclusion

The structure is designed for seismic safety, reducing the potential for failure in an earthquake and reducing impacts to local direct and possibly cumulative long term minor and adverse. Grading and importing fill would have a local direct and cumulative long term minor adverse impact to geologic resources.

WATER QUALITY

The construction site likely drains to the Columbia River and releases could impact water quality. Construction for this project will likely include a permit under the National Pollution Discharge Elimination System (NPDES) Phase II requirements. The State of Washington, Department of Ecology, Water Quality Program, is delegated by the U.S. EPA as the state water pollution control agency, responsible for implementing federal and state water pollution control laws and regulations. The construction contractor would likely be required to prepared a Storm Water Pollution Prevention Plan (SWPPP) and submit it for approval. With implementation of measures in the SWPPP impacts would be reduced to local short term adverse and negligible to minor. Measures to reduce the potential for storm water pollution are listed in Table 3 and may include keeping spill prevention materials on-site, coverings stockpiled material, and erosion control.

Cumulative Impacts

The Columbia River has been impacted by the cumulative actions of development in the Pacific Northwest. Short term construction could add minor adverse impacts related to sediment or spills migrating to the River. Measures have been put in place to reduce the potential to a minor level. Long-term, runoff from the structure would be collected, stored, and used for irrigation.

Conclusion

The Preferred Alternative may lead to local indirect and cumulative short term minor adverse impacts to water quality from storm water runoff related to construction.

IMPACTS OF NO ACTION ALTERNATIVE

CULTURAL RESOURCES

Under the No Action Alternative, it is expected that further archeological investigations would occur in the historic village area as funding and resources became available.

Cumulative

No Cumulative impacts would result from the No Action alternative.

Conclusion

Continuation of the existing conditions would likely result in no impact to Cultural Resources and no impairment to Cultural Resource values in the park.

TRANSPORTATION AND CIRCULATION

The lack of a non-motorized connection between the Discovery Trail and the Columbia River Waterfront Trail in the fort area is considered an adverse impact to non-motorized circulation.

Cumulative

No Cumulative impacts would result from the No Action alternative.

Conclusion

Local indirect long term moderate adverse impact from existing circulation conditions for non-motorized transportation. No impacts to vehicle, rail, or air, traffic.

VISITOR EXPERIENCE

The story of Fort Vancouver is not complete without an understanding of the connection between the fort and the Columbia River. Currently, the connection between the fort and river is severed.

Cumulative

No Cumulative impacts would result from the No Action alternative.

Conclusion

Local to regional indirect long term moderate adverse impact to Visitor Experience from the existing conditions

AESTHETIC ENVIRONMENT

The No Action Alternative would have less impact to the historic setting than the Preferred Alternative because it would avoid adding an additional feature into the historic setting and potential adverse impacts to Kanaka Village reconstructions. The lack of viewpoints of the river and fort is considered an adverse impact to visual resources.

Cumulative

No Cumulative impacts would result from the No Action alternative.

Conclusion

Continuation of the existing conditions is considered a local indirect long term minor to moderate beneficial impact to the historic setting when compared to the Preferred Alternative and a local direct minor to moderate adverse impact to visual resources.

PARK OPERATIONS

Cumulative

No Cumulative impacts would result from the No Action alternative.

Conclusion

Continuing the existing conditions will result in no impact to park operations.

GEOHAZARDS, GEOLOGIC RESOURCES, SOILS

Cumulative

No Cumulative impacts would result from the No Action alternative.

Conclusion

Continuing the existing conditions will result in no impact to geologic resources or increased impacts from geohazards.

WATER QUALITY

Cumulative

No Cumulative impacts would result from the No Action alternative.

Conclusion

Continuing the existing conditions will result in no impact to water resources.

CONSULTATION AND COORDINATION

Scoping was conducted to inform the public of the proposed project and identify potential environmental issues. In February 2004, NPS staff mailed a scoping letter to interested individuals, organizations and agencies. The letter included a brief description of the project, a project area map, and included scoping period and public meeting date. The public scoping meeting was held March 2, 2004 in Vancouver, WA. A newspaper article that included the meeting date and time was printed in The Columbian newspaper on February 7, 2004 and about 15 members of the public attended the public scoping meeting that was broadcast on local access TV. An opinion piece about the project was included in the March 3, 2004 edition of the paper and another was included in the paper on March 17, 2005. In addition, NPS sent specific scoping letters to interested agencies, including the Washington State Historic Preservation Officer, Washington Department of Natural Resources, Washington Department of Fish and Wildlife, and U.S. Fish and Wildlife Service.

From scoping, NPS received 10 letters, including five from individuals, four from agencies, and one from the Spokane Tribe of Indians.

- The U.S. Department of Transportation Federal Aviation Administration (FAA) summarized "Our concerns with the project are the protection of airspace for safe aircraft flight, and the safety of people on the ground in close proximity to runways and their approaches." The project team has worked with the FAA during design to propose a structure that would not compromise aircraft safety and is preparing the necessary plans for FAA concurrence, including permit #7460.
- The Spokane Tribe of Indians recommended the project proceed cautiously and that archeological survey information be provided. The project team is providing the survey results to the Spokane Tribe of Indians that are summarized in this EA.
- The Washington State Department of Natural Resources and the Washington State Department of Fish and Wildlife each provided information about sensitive species in the project vicinity. This information was evaluated when preparing the analysis.
- The National Park Service, National Trails System Office requested the EA include information concerning the Lewis and Clark National Trail and the Oregon National Trail. Information has been added to the EA.
- Letters from individuals expressed concern over a potential increase in off-leash dog-walking due to the project, separation of bicycles and pedestrians on the path structure, concerns over maintenance and opposition over the use government funds for this project, and suggestions for moving Police and Federal Highways Administrative buildings out of the Reserve for historic restoration. In response, the dog walking use may increase due to the project however, regulations concerning off-leash dog-walking would not change and no impacts are expected. The pathway is designed for multiple uses and pedestrian/bicycle conflicts are not anticipated, however the pathway is not intended for heavy bicycle commuter use. The desire is that cyclists using the pathway will mix with pedestrians in a compatible manner and will be encouraged to travel at slower speeds, or walk their bicycles. Maintenance of the structure would be managed by the City of Vancouver and it is assumed adequate budgeting would be maintained. The NPS has no authority over the administrative functions of other government agencies.

This EA has been mailed to interested individuals, groups, and agencies and is posted on the park website at: http://www.nps.gov/fova/pphtml/news.html . An open house for the project was held on April 14, 2005 and a public scoping meeting is planned for June 2005 that will be announced with a press release. Public comment will last 45 days from the publication of this EA. Comments will be accepted at the meeting or in writing via email at: **FOVA_Superintendent@nps.gov**

Letters can be sent to:

Superintendent
Ft. Vancouver National Historic Site
612 East Reserve Street
Vancouver, Washington 98661-3897

Please note that names and addresses of people who comment become part of the public record. If individuals commenting request that their name or\and address be withheld from public disclosure, it will be honored to the extent allowable by law. Such requests must be stated prominently in the beginning of the comments. There also may be circumstances wherein the NPS will withhold from the record a respondent's identity, as allowable by law. NPS will make available to public inspection submissions from organizations or businesses and from persons identifying themselves as representatives or officials of organizations and businesses; and, anonymous comments may not be considered.

Consultation is on-going with the following agencies:

Memorandum of Understanding
A Memorandum of Understanding (MOU) is being finalized between the National Park Service, City of Vancouver, Washington State Department of Transportation, the Federal Highway Administration, and the Confluence Project outlining the goals of the project and the roles and responsibilities of each agency. It is expected the MOU would be finalized prior to completing the environmental compliance for this project.

The Preferred Alternative also includes an agreement for the construction, operation, and maintenance of the land bridge. This agreement would include the Resource Protection Measures in this EA and is anticipated in the summer of 2005.

Washington State Historic Preservation Officer

In addition to meeting the requirements of NEPA this project must also comply with the requirements of Section 106 of the National Historic Preservation Act (NHPA) and its implementing regulations. Section 106 requires federal agencies, or those they fund or permit, to consider the effects of their actions on the properties that may be eligible for listing or are listed in the National Register of Historic Places (NRHP). For this project, the NPS is leading the compliance with Section 106 of the National Historic Preservation Act. To evaluate whether an undertaking could affect NRHP eligible properties, cultural resources (including archeological, historical, ethnographic, and architectural properties) must be inventoried and evaluated for

listing in the NRHP. The Section 106 review process normally involves a four-step procedure described in detail in the Section 106 Regulations (36 CFR Part 800):

1. Establish the area of potential effects (APE), identify and evaluate cultural resources consultation with the State Historic Preservation Office (SHPO) and interested parties
2. Assess the effects of the undertaking on properties that are eligible for inclusion in the NRHP
3. Consult with the SHPO, other agencies, and interested parties to develop an agreement that addresses the treatment of historic properties and notify the Advisory Council on Historic Preservation
4. Proceed with the project according to the conditions of the agreement

The NPS will continue to coordinate with the Washington State Historic Preservation Office as part of the environmental compliance effort, including preparation of a draft Memorandum of Agreement (MOA) between the NPS and the SHPO regarding the project. The MOA stipulates the procedures for compliance with Section 106 of the NHPA. The MOA, once fully executed, evidences the park's compliance with Section 106 of the NHPA and shall govern the undertaking (36 CFR 800.6). The MOA establishes the procedures for conducting further efforts to inventory archeological resources, requirements for Native American consultation, procedures for consultation with the SHPO, procedures for development of strategies to avoid and protect resources, and reporting and monitoring requirements.

U.S. Fish and Wildlife Service/ National Marine Fisheries Service

The endangered Species Act of 1973, as amended (16 USC 1531 et seq.) requires federal agencies to consult with the U.S. Fish and Wildlife Service to ensure that actions authorized, funded or carried out by the agency do not jeopardize the continued existence of listed species or critical habitat. The NPS prepared letters of no adverse effect for this project that would be submitted with this EA to the USFWS and/or the National Marine Fisheries Service (NMFS). It is expected that the agencies would concur with the finding of no adverse effects to sensitive species. Consultation will be completed prior to the finalizing of compliance for this project. In addition, this EA is being sent to the Washington State Department of Natural Resources and the Washington State Department of Fish and Wildlife.

State of Washington, Department of Ecology, Water Quality Program,

The Project Team will likely be consulting with the State of Washington, Department of Ecology, and Water Quality Program to ensure compliance with Section 401 of the Clean Water Act. Because the construction site likely drains to the Columbia River and releases could impact water quality, this project will likely include a permit under the National Pollution Discharge Elimination System (NPDES) Phase II requirements. The State of Washington, Department of Ecology, Water Quality Program, is delegated by the U.S. EPA as the state water pollution control agency, responsible for implementing federal and state water pollution control laws and

regulations. The design team or construction contractor may prepare a Storm Water Pollution Prevention Plan (SWPPP) and submit it for approval.

List of Preparers

Jonathan Gervais, Environmental Protection Specialist, Pacific West Region, NPS
Doug Wilson, Archeologist, Fort Vancouver NHS and Vancouver NHR
Larry Miranda, Environmental Protection Specialist, Mount Rainer National Park

Project Team

Tracy Fortmann, Superintendent, Fort Vancouver NHS
Keith Dunbar, Chief of Planning and Compliance, Pacific West Region, NPS
Cheryl Teague, Landscape Architect, Pacific West Region, NPS
Thayer Rorabaugh, Manager of Transportation Services, City of Vancouver
Jan Bader, City of Vancouver
Michael Williams, Assistant Area Engineer, Washington State Department of Transportation
Jane Jacobsen, Director, Confluence Project
Robert Balaski, Project Manager, Confluence Project
Tim Shell, Project Manager, KPFF Architects

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APPENDIX A: SCOPING NOTICE

United States Department of the Interior

NATIONAL PARK SERVICE

SCOPING NOTICE

Fort Vancouver National Historic Site Environmental Assessment
Access Improvements and Land Bridge Construction

The purpose of this notice is to advise interested agencies, organizations, and individuals of the proposed access improvements and land bridge construction project at the Vancouver National Historic Reserve and to solicit comments on the issues and resources that should be addressed in the Environmental Assessment (EA). The proposal is a joint undertaking by the National Park Service, City of Vancouver, Washington State Department of Transportation, and the Confluence Project.

The proposal includes construction of a pedestrian and bicycle bridge from Vancouver National Historic Reserve over State Route 14 and Interstate 5, construction of a trail from the bridge to Old Apple Tree Park, parallel to the railroad berm, and construction of trail improvements to access this new corridor (See attached Figure).

The purpose of this proposal is to reconnect the City of Vancouver and the Vancouver National Historic Reserve to the Columbia River, to improve trail connections, including the Discovery Trail, and to commemorate the bicentennial of the journey of Lewis and Clark. These actions are included and consistent with the Fort Vancouver National Historic Site Final General Management Plan and Environmental Impact Statement (2003) (http://www.nps.gov/fova/pphtml/news.html) and the Vancouver National Historic Reserve Cooperative Management Plan (2000).

A scoping meeting will be held Tuesday, **March 2, 2004** at 7:00pm at the Water Resources Education Center located between SR-14 and the Columbia River (See attached Figure). A 20-minute presentation will be given and comments will be accepted verbally and in writing.

NPS expects to have the EA prepared and made available for public review and comment by spring 2004 for a 45-day review period. The EA will be available on the park's website (http://www.nps.gov/fova/index.htm). The project work is tentatively scheduled to begin in 2005. If you would like to receive a copy of the EA or have questions, comments, or concerns about the proposal please write to the address below or come to the scoping meeting to share your comments:

Superintendent
Fort Vancouver National Historic Site
612 East Reserve Street
Vancouver, WA 98661

Please mail your comments on or by **March 14, 2004.**

Thank you

APPENDIX B: NOTICE OF EA: DISTRIBUTION LIST

First Name	Last Name	Agency/ Organization/ Individual
		US FISH & WILDLIFE SERVICE
		DAR COLONISTS
		CHAMPOEG INTERP CENTER MUSEUM
		ARCH COUNCIL OF CATHOLIC WOMEN
		OREGON CITY ANTIQUE MALL
		OREGON TRAIL FOUNDATION
		HISTORICAL PRSV LEAGUE OF OR
		MILWAUKIE HISTORICAL SOCIETY
		OREGON CITY LIBRARY
		METRO
		WASHINGTON COUNTY ADMN OFFICE
		OFC OF PLANNING, MULTNOMAH CNTY
		CLACKAMAS COUNTY
		BONNEVILLE POWER ADMINISTRATION
		MULTNOMAH COUNTY LIBRARY
		US ARMY CORPS OF ENGINEERS
		FEDERAL AVIATION ADMINISTRATION
		LEWIS & CLARK COLLEGE, HISTORY DEPT
		OREGON MILITARY MUSEUM
OR COMM ON HISTORIC CEMETERIES		OREGON HERITAGE COMMISSION
		CANBY HISTORICAL SOCIETY
		NORTHWEST QUILTERS
		TILLAMOOK CO PIONEER MUSEUM
		TRI-MET
		NATL SOCIETY OF COLONIAL DAMES
		MCLOUGHLIN HOUSE NHS
		CROOK CTY HISTORICAL MUSEUM
		MISSION MILL MUSEUM
		HOOVER-MINTHORN MUSEUM
		OREGON STATE LIBRARY
		JZH HISTORICAL SOCIETY
		MONTIETH HISTORICAL SOCIETY
		MARION CNTY HISTORICAL SOCIETY
		AURORA COLONY HISTORICAL MUSEUM
		PITTOCK MANSION MUSEUM
		BUREAU OF INDIAN AFFAIRS
		VICTORIOUS FAITH FAMILY CHURCH
		OFFICE OF NEIGHBORHOOD ASSOCIATION
		CONFEDERATED TRIBES OF WARM SPRINGS
		END OF THE OR TRAIL INTERPRETIVE CTR
		END OF THE OR TRAIL CENTER
		THE CONFEDERATED TRIBES OF GRAND RONDE
		METRO/REGIONAL GOVERNMENT
		BUREAU OF LAND MANAGEMENT
		COWLITZ TRIBAL COUNCIL
		WA DEPT OF TRNSPRTN SW REGION
		USGS
		CLACKAMAS HERITAGE COUNCIL
		WASHINGTON DNR, SW REGION

First Name	Last Name	Agency/ Organization/ Individual
		WA DEPT OF FISH & WILDLIFE, SW REGION
		GENERAL SERVICES ADMINISTRATION
RANDY	ABRAHAMSON,	SPOKANE TRIBE OF THE SPOKANE RESERVATION
CAROLYN	ADAMS	
DEANNE	ADAMS	NPS-PACIFIC GREAT BASIN SUPPORT OFFICE
DOROTHY	ADDINGTON	
LEO	ALECK	YAKAMA INDIAN NATION
ROBERT WAPPAT	ALECK	YAKAMA INDIAN NATION
KENNETH M	AMES	PORTLAND STATE UNIV, ANTHROPOLOGY DEPT
KEN	AMES	PORTLAND ST UNIV, CRAMER 141
JULIE	ANDERSEN	THE COLUMBIAN
DANIEL & KATHY	ANDERSON	
FOREST	ANDERSON	
TED	ANDERSON	
MAUAU & MONTY	ANDERSON	
KATHI	ANDERSON	
BRIAN	ASHER FAMILY	
JANE	ATKINSON	LEWIS & CLARK COLLEGE, ANTHROPOLOGY DEPT
JOHN	AUSEMA	
EDWARD HALEALOHA	AYAU	HUI MALAMA I NA IUPUNA O HAWAII
EDWARD H	AYAU	HUI MALAMA I NA IUPUNA O HAWAII
FORESTRY LIBRARY	B50 NRAB	UNIVERSITY OF MINNESOTA
MARCIA	BABLO	CONFDRTD SALISH & KOOTENAI TRIBES
BILL	BACK	DOI OFF OF REGIONAL SOLICITOR
THE HONORABLE BRIAN	BAIRD	US HOUSE OF REPRESENTATIVES
THE HONORABLE BRIAN	BAIRD	US HOUSE OF REPRESENTATIVES
THE HONORABLE BRIAN	BAIRD	US HOUSE OF REPRESENTATIVES
STEVE & JACKIE	BAKER	
JANE	BAKER	
JOHN	BAKER	
DEAN	BAKER	THE COLUMBIAN
LEE	BAMBER	
DICK	BARANOVICH	
ANNE	BARBEY	
MRS GRAHAM	BARBY	
TWYLA & ALAN	BARNES	
JOHN	BARNETT,	COWLITZ INDIAN TRIBE
BERNADEAN	BARRETT	
WENDELL	BASKINS	CLARK CTY HISTORICAL SOCIETY
JOHN & JOANNE	BASTIAN	
HONORABLE AL	BAUER	49TH DISTRICT SENATOR
JOHN C & VIRGINIA	BEATTY	
ALAN	BEAVERHEAD	CONFDRTD SALISH & KOOTENAI TRIBES
SHEILA	BECKWITH FAMILY	
GERALDINE	BELL	
LINDA	BELL,	CLACKAMAS CTY TOURISM DEV CMMTE
RICHARD	BELLON	CONFDRTD TRIBES OF THE CHEHALIS
KIM	BENNETT	SW WA CONV & VISITORS BUREAU
RAYMOND	BENSKI	
BECKY	BERG	SCHWABE WILLIAMSON & WYATT
RON & TRICIA	BERGMAN	
ROSE	BESSERMAN	CITY OF VANCOUVER

First Name	Last Name	Agency/ Organization/ Individual
MARGIE	BICKFORD	
SALLY	BIRD	CONFDRTD TRIBES OF THE WARM SPRINGS
JACK	BIRKMAN	
C M	BISHOP JR	
DONALD G	BLETH	
JOHN	BOHAN	
REP MARC	BOLDT	
ANITA	BOWMAN	
DANIEL L	BOXBERGER	WESTERN WA UNIV, ANTHROPOLOGY DEPT
JANET	BRADLEY	TEARS OF JOY THREATRE
JAMES A & EVELYN L	BRADY	
RON	BRAINARD	CONFDRTD TRIBES OF THE CLUSI
DAVID R	BRAUNER	OR STATE UNIV, ANTHROPOLOGY DEPT
ALLAN	BRETTMAN	THE OREGONIAN
MARY JO	BRIGGS	CITY OF VANCOUVER
BOB	BRINK,	POMEROY LIVING HIST FARM
PAM	BROKAW	CITY OF VANCOUVER
BILL	BROOKS FAMILY	
ALLISON	BROOKS PHD, WA SHPO	OFFICE OF ARCH & HISTRCL PRSV
DAVID	BROWN	
MARK	BROWN	CITY OF VANCOUVER
GARLAND	BRUNOE,	CONFDRTD TRIBES OF THE WARM SPRINGS
TRACY	BUNN	
STEPHEN	BURDICK	CITY OF VANCOUVER
SHAWNA	BURKHOLDER	
DAVE	BURLINGAME	COWLITZ INDIAN TRIBE
CRAIG	BURNS	
JOHN	BURPEE	
DEE	BUSCH	
PEG	BUSICK	
VERA & HOWELL	BUTLER	
VIRGINIA	BUTLER	PORTLAND ST UNIV, CRAMER 141
WADE	BYERS	
RANDY	CALHOUN	
FRANK	CAMP	PO BOX 165
CAROLE J C	CAMPBELL	
MRS JOHN	CAMPBELL	
COLIN & VIRGINIA	CAMPBELL	
SCOTT	CAMPBELL,	THE COLUMBIAN
KEVIN	CANNELL	NEZ PERCE TRIBE
THE HONORABLE MARIA	CANTWELL	UNITED STATES SENATE
PEARL	CAPOEMAN-BALLER,	QUINALT INDIAN TRIBE
PEARL	CAPOEMAN-BALLER,	SILETZ TRIBE, CULTURAL RESOURCES DEPT
THE HONORABLE DON	CARLSON	WA SENATE
RONALD W	CARMICHAEL,	USDOT, FHWA
MICHAEL	CARRIER,	OR ST HISTORICAL PRESERVATION OFFICER
ARTHUR	CARROLL,	COLUMBIA RIV GORGE NATL SCENIC AREA
W A	CAVANAGH	
	CENTER FOR COLUMBIA RIVER HISTORY	GEN O O HOWARD HOUSE
CORNELIA	CERF	COLONIAL DAMES
GREGG	CERMAK	CLARK CTY HISTORICAL SOCIETY
PATRICIA N	CHAMBERLIN	

First Name	Last Name	Agency/ Organization/ Individual
LEONA	CHAMBERS	
BOB	CHASE	FRIENDS OF FORT VANCOUVER
DERRICK	CHISHOLM	HISTORIC PRESERVATION COMM
PAUL	CHRISTENSEN	REALVEST CORPORATION
BEV	CHRISTMAN	
LONI	CHUBBY	QUINALT INDIAN TRIBE
IRENE	CHURCHEK	
LOUISE	CLAIR	
PAUL	CLARE	
GLORIA	CLAYBIN	
CAROLE A WHITE	CLU	
MARY	COATES	
SUSAN	COLBY	
HAZEL	COLLINS	
CECELIA	COLSON	
PHYLLIS	COOCHIE-CAYAN	O'AHU ISLAND BURIAL COUNCIL
JACKIE	COOK	
DREW	COOKS	
PAT	COOLEY	
SCOTT	COOLEY,	CITY OF VANCOUVER
CAITLIN	CORNING	GEORGE FOX UNIV, HISTORY DEPT
BILL & JANIE	COX	
TOM	CRAIG	
ELAINE	CRAIG	
DEE	CRAIG,	CITY OF OREGON CITY
LUCILLE	CRITESER	
HOWARD	CROMBIE,	CONFDRTD TRIBES OF COOS LWR UMPQUA & SUISLAW
CHARLENE	DAHLEN	GEN O O HOWARD HOUSE
KAY	DALKE	FIRST INDEPENDENT BANK
CATHIE	DANIELS	OLD HOME FORUM
TERRY	DARBY	WHITMAN MISSION NAT'L HISTORIC SITE
NELDA	DAVIS	
JACKSON	DAVIS	
WANDA	DAVIS	
NORMA	DAY	
BILL	DEBERRY	
MRS ROBERT	DELUCCIA	
JIM	DEMETRO	
JIM	DEMMON	VIDEO PRODUCER, CVTV
HAL	DENGERIK	
CANDACE	DETLOFF	DAR (SUSANNAH LEE BARLOW CHAPTER)
HELEN	DEVERY	THE JD WHITE CO, INC
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HENRY V	DIAZ	C/O MAKAY & SPOSITO INC
DAVID	DICKSON,	CLACKAMAS COMMUNITY COLLEGE
FRANK	DILLARD	
REBECCA J	DOBKINS	WILLAMETTE UNIV, ANTHROPOLOGY DEPT
JOHN & GRACE	DONNELLY	
JOHN	DONNELLY	
JOHN J	DONNELLY,	PEARSON AIRPARK HISTRCL SCTY
GERALD	DONNELLY-SMITH	CLARK COLLEGE
DAN	DONOVAN	

First Name	Last Name	Agency/ Organization/ Individual
ELLEN	DOUGLAS	
DAN	DRENTLAW,	PLANNING DEPARTMENT
ERIC	DUFENDACH	
THE HONORABLE VERN	DUNCAN	OREGON SENATE
LARRY	DUNHAM	
REP JIM	DUNN	
RITA	DUPONT	
WILLIAM	DUVALL	WILLAMETTE UNIV, HISTORY DEPT
CHAD	EIKEN	
IRENE	EISENHUT	
DOUGLAS & BARBARA	ELESER	
KAREN	ELESER	
JOHN B	ENGBER	
PHILIP	ENGSTROM FAMILY	
MARY	ERICKSEN	
JON M	ERLANDSON	UNIVERSITY OF OR, ARCHAEOLOGY DEPT
VICTOR	ERLICH,	CITY OF VANCOUVER
BARBARA	ESLINGER	
JIM	ETZKOM	
WALTER	EVANS	SCHWABE WILLIAMSON & WYATT
MRS R WARREN	EVANS	
DAVID	FENTON	
PATTY	FERRELL	
PETER C	FIELD,	US DEPT OF TRANSPORTATION
JOHN	FINDLEY	UNIV OF WA, HISTORY DEPT
WAYNE	FIRTH	
DALE	FISHER FAMILY	
KEN	FITCH	
GREG & CAROL	FLAKUS	
LINDA	FLOYD	MARSHALL HOUSE
ROBERTS	FOGARTY	
DEBBIE	FORTIN	VANCOUVER NATL HISTORIC RESV TRUST
MORRIS & JANET	FORTMANN	
DANIEL R	FORTMANN	
KIM	FOX-MIDDLETON	
KIM	FOX-MIDDLETON	NPS GEN O O HOWARD HOUSE
KATHY	FRANCO,	RIVERSHORE HOTEL
ROBERT	FREED	
CHRIS	FRIDAY	WESTERN WA UNIV, HISTORY DEPT
PROF H PAUL	FRIESEMA	INST FOR PLCY RSRCH, NW UNIVERSITY
THE HONORABLE BILL	FROMHOLD	WA HOUSE OF REPRESENTATIVES
DAVID	FROSETH	
FRANK	FUGE	
BERNICE FOWLER	FUKARDT	
ERIC & JUDIE	FULLER	
LILLIAN	FULLERTON	
LINDA	FULLERTON	
CHRISTINE	FULLERTON	
PAUL	GABALIS	
WILMER	GARDNER	
JULIE	GARVER	
JOYCE E	GARVER	

First Name	Last Name	Agency/ Organization/ Individual
PEGGY	GARVISON	
TED	GATHE,	CITY OF VANCOUVER
C N & GRACE	GAYMON	
PHYLLIS	GEHRING	
DAN	GEORGE	PARKS & RCRTN DEPT.
JANE	GERMAN	
PETER	GLAZER	
MICHELE	GLOVER	
LEON	GOBET	
HANK	GOBIN	TULALIP TRIBES OF THE TULALIP RESERVATION
LEE & DOLORES	GOLDEN	
NEIL	GOODHUE	
KATE	GREEN	
GARRON	GUEST	
JACK	GUSKE	WASHTUCNA SD
JACK	GUSKE	
STEVE	GUSTAFSON	
THELMA	HAGGENMILLER	
TOM	HAGLEY JR	VANCOUVER PUBLIC SCHOOLS
JOHN & JAN	HAKANSON	
MIKE & DORIS	HALE	
DANA N	HALL	HUI ALANUI O MAKENA
NAOMI A	HALL	
BRUCE	HALL	
DOUG	HALSEY	NPS GEN O O HOWARD HOUSE
SHARON	HAMMER	FORT VANCOUVER REG LIBRARY
JAMES	HAMRICK,	OR PARKS AND RECREATION DEPT
WENDY	HANEY	
WENDY	HANEY	FEDERAL HIGHWAYS ADMINISTRATION
GELLANE	HANRAHAN	
CAROL	HANSEN	
JEANNIE	HARRIS	
JEANNE	HARRIS	
PATRICK	HARRIS,	MUSEUM OF THE OREGON TERRITORY
PATRICK	HARRIS,	CLACKAMAS COUNTY HISTORICAL SOCIETY
GLENN	HARRISON	NW CHAPTER OCTA
GLENN	HARRISON,	OCTA/NW CHAPTER
ANNE	HART	THE COLUMBIAN
SALLY	HART	
SHIRLEY LEWIS	HARTMAN	
KIM	HASH	
JEWEL	HASSING	
CHRIS	HATHAWAY	
CORRIE	HAUSMAN	
BETTE & KARL	HAYES	
SANDY	HAYSLIP	
ANN	HEESTAND	
JANICE	HEINER	NATIONAL PARK TRUST
ALISON	HENDERSON	
CHIEF LEO R	HENRY,	TUSCARORA NATION OF NEW YORK
NANCY	HERSEY	SONS & DAUGHTERS OF THE OR PIONEERS
BOB & SUE	HIGGINS	

First Name	Last Name	Agency/ Organization/ Individual
TRACY	HILL	
JAMES	HINES	
DOROTHY	HITT	SECOND NATURE SOFTWARE
LISA	HIX	CITY OF VANCOUVER
BLANCHE	HOBBS	
LARRY	HOLDEN	KEY PROPERTIES
A L	HOLLOWELL	
THE HONORABLE DARLENE	HOOLEY	U.S. HOUSE OF REPRESENTATIVES
CHARLES	HOOVER	
ELIZABETH	HOSTERMAN	
RICHARD	HOVEY	
CYNTHIA	HOVIND	CONFDRTD TRIBES OF THE CLUSI
NANCY	HOWARD	
ERIC	HOWEE	E E HOWEE & COMPANY
JIM	HUDDLESTON	
ELAINE	HUFF	NPS- FORT VANCOUVER NHS
DEBBIE	HUFF	
GORDON	HUIRAS,	OREGON CITY POLICE
MRS JOHN	HUISMAN	
HILLARY	HUNT	BRIAN BAIRD'S OFFICE
CHARLES R	HUTCHINSON	
DOROTHY	HUTCHINSON	
CHARLES	HUTCHINSON JR	
TONY	INCASHOLA	CONFDRTD SALISH & KOOTENAI TRIBES
PATTI	INGEBRETSEN	
JEFF	JACOBS	AIRPORT ADVISORY CMTE
PAUL & JANE	JACOBSEN	
JANE	JACOBSEN	GEN O O HOWARD HOUSE
JUSTINE	JAMES	QUINALT INDIAN TRIBE
SUSAN	JAMES,	CARNEGIE CENTER
GORDON	JAMES,	SKOKOMISH INDIAN TRIBE/SKOKOMISH RESVN
KYLE	JANSSON	MARION CTY HISTORICAL SOC
MARSHA	JETT	
SARAH	JOHNSON	
DEBORAH	JOHNSON	FINANCIAL ADVISORS
TONY	JOHNSON	CHINOOK INDIAN TRIBE
JACK	JOHNSON	
MABEL	JOHNSON	
ANTHONY D	JOHNSON	NEZ PERCE TRIBE OF IDAHO
MADELYNE	JOHNSON	
ELIZABETH K	JOHNSON	
ELIZABETH H	JOHNSON	
JUDI	JOHNSON	
O J & RITA	JOHNSON FAMILY	
GARY	JOHNSON,	CHINOOK INDIAN TRIBE
RORY	JOHNSON,	BUFFALO SOLDIERS, PAC NW CHPTR
BILL	JOHNSTON	CITY OF VANCOUVER
PAT	JOLLOTA	
PAT	JOLLOTA	CLARK CTY HISTORCAL MUSEUM
MAYA	JONES	
HARRIET	JORGENSEN	
MIRIAM	KAHN	UNIV OF WA, ANTHROPOLOGY DEPT

First Name	Last Name	Agency/ Organization/ Individual
MARVIN	KARLSEN	
CAPT JAMIE	KARNS	CLACKAMAS COUNTY FIRE DISTRICT #1
JAINA	KEALA,	HAWAIIAN RIGHTS DIV, ST OF HAWAII
CHERYL	KENNEDY,	CONFDRTD TRIBES OF THE GRAND RONDE
DOUGLAS J	KENNETT	UNIVERSITY OF OR, ARCHAEOLOGY DEPT
ROBERT	KENTTA	SILETZ TRIBE
HAROLD S & KATHRYN	KERN	
PAUL J	KESSLER,	70TH REG SUP COM, ATTN: AFRC-CWA-EN
CAROL	KEY	FAA, NW MT REGION, SEATTLE ARPRTS DIST OFF
TAMI	KIHS	WATER RESOURCES EDUC CTR
RONALD	KIMBALL	MOLOKA'I ISLAND BURIAL COUNCIL
SARA	KING	CITY OF VANCOUVER PLNR
KEITH	KINSMAN,	KINSMAN FOUNDATION
COLIN	KIPPEN, JR	OFFICE OF HAWAIIAN AFFAIRS
ROBERTA	KIRK	CONFDRTD TRIBES OF THE WARM SPRINGS
DON	KLIMA,	ADVISORY COUNCIL ON HISTORIC PRSVTN
TOM	KOENNINGER	
TOM	KOENNINGER	THE COLUMBIAN
JERE	KRAKOW,	NPS LONG DISTANCE TRAILS OFFICE
REBECCA	KRAMER	
NANCY	KRAUSHAAR,	OREGON CITY PUBLIC WORKS
MARGARET	KRETSCHMAR	
SUZANNE	KUNSE	
D E	LABARRE	
TOM	LAIDLAW	
BILL	LANG	CTR FOR COLUMBIA RIVER HISTORY
BILL	LANG	PORTLAND ST UNIVERSITY, HISTORY DEPT
VIOLET B	LANG	
SCOTT	LANGFORD	
CAROLE & JASON U	LANGSDORF	
CHRIS	LANKFORD	
O M	LARSEN	
JIM	LARSON	
JOHN M	LARSON	
PAUL F	LAWSON	
SHARON & PAUL	LAWSON	
PAUL	LEE	NPS, DSC/HFC
ETHEL	LEHMAN	
TOM	LEMMONS,	CITY OF OREGON CITY COMMISSION
L	LEONARD	
AL	LEPAGE	
MARY	LEVIE	
COL. BILL	LEWELLYN	
MARYLYN	LEWIS	
JOHN	LEWIS,	CITY OF OREGON CITY
DAN	LINCOLN	
GLENN	LIVINGSTON	
THE HONORABLE GARY	LOCKE	GOVERNOR OF WASHINGTON
JIM	LORING	
CHIEF JAMES	LOTT, SR,	CONFDRTD TRIBES OF COOS LWR UMPQUA & SUISLAW
CHERYL U	LOVELL-OBATAKE	KAUA'I/NI'IHAU ISLAND BURIAL COUNCIL
NED & DOROTHY	LUKENS	

First Name	Last Name	Agency/ Organization/ Individual
EDWARD	LYNCH	THE ED LYNCH CO
AJ & CATHY	MACCIOCCA	
LOIS	MACK	GEN O O HOWARD HOUSE
MARVIN A	MACKEY	
MATTHEW	MADEIRA	
DOUGLAS F	MAGEDANZ	
DENISE	MAGEE	
ELAINE	MAHONEY	
DICK	MALIN	
YVETTE	MALMBERG	
NIKY	MALMBERG	
MRS MELVIN	MARK JR	
BARB & KELLEY	MAROLD	
JOHN & DONA	MARSHALL	
JOHN	MARSHALL,	VANCOUVER NHR TRUST-GEN O O HOWARD HSE
LOIS	MATHERS	
D FRED	MATT,	CONFDRTD SALISH & KOOTENAI TRIBES
ALFRED P	MAURICE	
PAM	MAXON	
ROSEMARIE	MC CALL	
SUSAN	MC CORMICK	
	MC CORMICK FAMILY	
PERRI	MC DANIEL,	CONFDRTD TRIBES OF THE GRAND RONDE
BILL	MC DONALD	
ANNE	MC DONALD	
PAT	MC DONNELL	CITY OF VANCOUVER
ANNE	MC ENERNY-OGLE	
COLONEL JACOB	MC FERREN,	HQ, I CORPS & FORT LEWIS
DENYSE	MC GRIFF	MCLOUGHLIN NEIGHBORHOOD ASSOCIATION
PAUL	MC GUFF,	COMMANDER, HQ I CORPS & FT LEWIS
JAMES	MEAD	
ROBERT L	MEINEN,	OPRD, HISTORIC PRSVTN OFFICE
KATHERINE	MELLOR	
MRS JERRY DEAN	MERCER	
MISCHELLE	MERCER BOOTH	
LAURIE	MERCIER	CENTER FOR COLUMBIA RIVER HISTORY
GRETCHEN	MERKLE	
HELEN	MERSHEN	
GINGER	METCALF	
MIRRA	MEYER,	OR COMM ON HISTORIC CEMETERIES
REP TOM	MIELKE	
KAREN J	MILES,	FAA, NW MT REGION, SEATTLE ARPRTS DIST OFF
JEFF	MILLER	
JEFF	MILLER	
JESSE	MILLER	
JOAN M	MILLER	
SANDRA NELSON	MILLER	
ANTONE	MINTHORN	CONFDRTD TRIBES OF THE UMATILLA INDN RESVN
ARMAND	MINTHORN	CONFDRTD TRIBES OF THE UMATILLA INDN RESVN
KENNETH	MITCHELL	
RUSTY	MOE	VANCOUVER-CLARK PARK & REC
JIM	MOEHLER	

First Name	Last Name	Agency/ Organization/ Individual
ROSS	MONTGOMERY	AIRPORT GREEN, NEIGHBORHOOD ASSOC
CAYLA	MORGAN	FAA, NW MT REGION, SEATTLE ARPRTS DIST OFF
PAMELA A	MORO	WILLAMETTE UNIV, ANTHROPOLOGY DEPT
CAROLEE	MORRIS	COWLITZ TRIBE
JANE	MORRISON	CLARK COUNTY HERITATE TRUST
EDYTHE	MOSS	
JOYCE & DENNIS	MUIR	
THE HONORABLE PATTY	MURRAY	UNITED STATES SENATE
PAT	NAEOLE	HAWAIIAN CULTURAL AWARENESS EDUC INC
SHERI	NEE	THE COLUMBIAN
PAUL	NELSEN	
RACHEL	NELSON	
STEVE & KAREN	NELSON	
EVERT "CHUCK"	NELSON	
DELORES	NEWBERN	
RICHARD	NEWMAN,	OREGON CITY SCHOOL DISTRICT #12
DAVID	NICANDRI	WA STATE HISTORICAL SOCIETY
CECILE ALYCE	NOLAN	
DR MICHAEL	NORRIS FAMILY	
THE HONORABLE ALICE	NORRIS,	CITY OF OREGON CITY
GUS	NORWOOD	FT VANCOUVER HISTORICAL SOCIETY
	NW INDIAN VETERANS OUTREACH	VANCOUVER MEDICAL CENTER
GARY	O'CONNELL	
DAN & VAL	OGDEN	
RAY	OGLESBY	
B P	OHARE	BUFFALO SOLDIER
MARGUERETE	OLIVER	
JUNE	OLSEN	CONFDRTD TRIBES OF THE GRAND RONDE
BRETT	OPPEGAARD	THE COLUMBIAN
CHET	ORLOFF,	OREGON HISTORICAL SOCIETY
TERRY & SHARON	OSBORN	
JEFFRY	OSTLER	UNIVERSITY OF OR, HISTORY DEPT
MARCIA	PABLO	CONFDRTD SALISH & KOOTENAI TRIBES
MARILY	PAMPLIN	
PHILIP S	PARKER	
JEFF	PARKS	
NALEI	PATE-KAHAKALAU,	HAWAI'I ISLAND BURIAL COUNCIL
OLNEY	PATT, JR	CONFDRTD TRIBES OF THE WARM SPRINGS
LARRY	PATTERSON,	CITY OF OREGON CITY
NICK	PECK,	FRIENDS OF FORT VANCOUVER
PAUL & MAUREEN	PEDONE	
PIKAKE	PELEKAI	ISLAND BURIAL COUNCIL, OAHU
SAMUEL N.	PENNEY,	NEZ PERCE TRIBAL EXEC COMM
RUTH	PENNINGTON	
ALFRED	PEONE,	SPOKANE TRIBE OF THE SPOKANE RESERVATION`
ROSANNE	PETERSAN	
VERNON & JELENE	PETERSON	
RICHARD	PETERSON	ASSOCIATED CATHOLIC CEMETARIES
HERMAN A	PETERSON	
MARY PAT	PETERSON	
DOROTHY	PIERCE	DUBOIS NEIGHBORHOOD
DR JOHN	PIERCE,	OREGON HISTORICAL SOCITY

First Name	Last Name	Agency/ Organization/ Individual
DELORES	PIGSLEY,	SILETZ TRIBE COUNCIL
RICHARD	PINGREY,	OR-CALIFORNIA TRAILS ASSOCIATION
JULIE	PIRRUCCELLO	
MICHAEL	PLAMONDON	
RUDY E & BETTY MAY	PODHORA	
RICHARD & ANNETTE	POKORNOWSKI	
ROYCE	POLLARD,	CITY OF VANCOUVER
PAMELA PARRISH	PORTER	
DAVID	PORTER,	END OF THE TRAIL INTERPRETIVE CENTER
LARRY	POTTER	OREGON CITY PARKS & RECREATION
DAVID	POTTER,	CLACKAMAS HERITAGE PARTNERS
SONDRA	POWELL	
STEVE	POYSER	
ROBERT	PUCKHISER	
KELLY	PUNTENEY	PARKS & RECREATION DEPT
LEE	RAFFERTY	
AL	RAINES	VANCOUVER BUSINESS JOURNAL
JIM	RALEY	
BOB & RITA	RANDALL	
RICK	READ	OREGON HISTORICAL SOCIETY
RICHARD	REED	
EDWARD L	REIDELL	
JIM	RENNER	
TERRY	RICHARD	
LEVERATT & VIRGINIA	RICHARDS	
JOHN	RIGGS, JR	
GENA	RILEY	THE JD WHITE CO, INC
BARBARA GODVIN	RINEY	
SHERMALEE	ROAKE	
BRYAN	ROBBINS	
DIANNE LYNNE	ROBERTS	MT ST HELENS NATL VOLCANIC MNMT
CHRISTINA	ROBERTSON-GARDNER,	PLANNING DEPT, HISTORTIC REV BOARD
MARY B	ROBINSON	
MARY	ROBINSON,	THRESHOLD INCORPORATED
VALERIE	RODMAN	
THAYER	RORABAUGH	CITY OF VANCOUVER
MARY	ROSE,	INT'L AFFAIRS COMM
SHELLEY	ROSENBERG	
NANCY	ROTTEL	JONES & JONES
JUDITH	RUSSO	
DAVID	SACKS	REED COLLEGE, HISTORY DEPT
RANDY	SALISBURY	
JOHN & JAN	SALISBURY	
WENDE	SANCHEZ,	OREGON CITY CHAMBER OF COMMERCE
HELEN	SAREEN	
SUE	SARGENT	
ROBERT & SALLY	SCHAEFER	BLAIR SCHAEFER HUTCHINSON & WOLF
DEBBIE	SCHEINDER	
DR JOHN	SCHILKE	
TOM	SCHLECHT	
BOB	SCHMIDT	
ERNIE	SCHNABLER	CIVIL AIR PATROL

First Name	Last Name	Agency/ Organization/ Individual
GEORGE	SCHNEIDER	
THE HONORABLE KURT	SCHRADER	OR HOUSE OF REPRESENTATIVES
MRS DANIEL	SCHULTZ	
LYTLE	SCHULTZ	
DAVE	SCHWAB	CONFDRTD SALISH & KOOTENAI TRIBES
KATHRYN	SCOGGIN	
ELISE	SCOLNICK	CLARK CNTY COMMUNTY DEV
BOB & OLIVE	SCOTT	
LONNIE	SELAM, SR	YAKAMA INDIAN NATION
JIM & DEBRA	SEMRAU	
DOUGLAS M	SESSIONS	
DOROTHY	SETTERBERG	
WARREN	SEYLER	SPOKANE TRIBE OF THE SPOKANE RESVN
GREG LUECK & REBECCA	SEYMOUR	
LYNN	SHAFER	
SUE	SHAFFER	COW CREEK BAND OF UMPQUA TRIBE OF INDIANS
WAYNE	SHAMMEL	COW CREEK BAND OF UMPQUA TRIBE OF INDIANS
JENNIFER	SHERIDAN	
BARBARA	SHIELDS	OREGON CITY HISTORIC REVIEW BOARD
IDABELLE	SHOEMAKER	
JOHN	SIMMONS,	NISQUALLY INDIAN COMMUNITY COUNCIL
LINDA	SKINNER	
GLENN & SHIRLEY	SLACK	
ANDREW F	SMITH	
KATLIN	SMITH	
LARRY	SMITH	CITY OF VANCOUVER PARKS & REC
DAVID & CECI RYAN	SMITH	
THE HONORABLE GORDON	SMITH	UNITED STATES SENATE
DR. GERARD	SMITH	ENGLISH DEPT MSC 14
LARRY	SMITH & STAFF	CITY OF VANCOUVER PARKS & REC
TERRY	SNYDER	VANCOUVER/CLARK PARK & REC
VERA	SONNECK	NEZ PERCE TRIBE OF IDAHO
DAVE	SPEAR	
PATRICIA	SPENCE	
BECKY	SPENCE	
RICHARD	SPYCHALSKI,	VANCOUVER BRIDGE CLUB
LEONARD	SQUALLY	NISQUALLY INDIAN COMMUNITY COUNCIL
ALLYN	STALEY	
ERIN	STALEY,	DAR (SUSANNAH LEE BARLOW CHAPTER)
RUPERT	STASCH	REED COLLEGE, ANTHROPOLOGY DEPT
HARVEY	STEELE	
GALE & VIVIAN	STEPHENS	
CORNELIA	STEVENS	
KATHLEEN	STEWART	
VERNON	STONER,	
KURT	STONEX	
GLEN	STREIGHT	
GENEVIEVE H	SULLIVAN	
IRMA	SULLIVAN	OREGON CITY WOMAN'S CLUB
DEANNE	SULLIVAN,	OR COMM ON HISTORIC CEMETERIES
ALLEN	SUNBERG	
PAT & CHICK	SUTHERLAND	

First Name	Last Name	Agency/ Organization/ Individual
GLENN	SUTT	
DAVID	TANG	
IRENE	TEN EYCK	
MARY ANN	THIMMES	
ARNOLD & SHIRLEY	THOMAS	
JAMES M	THOMSON	
MARGORIE & WALLY	THORNBERGER	
MRS A E	TIMBERMAN	
SUSAN GAUGHAN	TISSOT	COWLITZ COUNTY MUSEUM
VIRG & ILMA	TOMLIN	
DAN	TONKOVICH	
CINDY	TOWLE	
BARBARA	TREYVE	
ROGER	TRICK	WHITMAN MISSION NAT'L HISTORIC SITE
MARC	TRUEB	
STEVE	TUBB	
LUCY	TUBBS	
KAREN RONNE	TUPEK,	STATE HISTORIC PRESERVATION OFF
ROBERT	TURKISHER	
WASHINGTON STATE	UNIVERSITY	ANTHROPOLOGY DEPARTMENT
WARD	UPSON	
RUTH	VANARAM	
ERNIE	VANDE ZANDER	CITY OF VANCOUVER
ELEANOR	VANDEWATER	
JEFF	VANFELT	CONFDRTD TRIBES OF THE WARM SPRINGS
MARY	VARGAS	FAA, NW MT REGION, SEATTLE ARPRTS DIST OFF
CHAMP	VAUGHN	
CELESTE	VIGIL	SKOKOMISH TRIBAL COUNCIL
FLORENCE	WAGER	
HEALANI	WAIWAIOLE	NO HO LIKE
VERA	WALDO	
ELIZABETH	WALKER	CITY OF VANCOUVER
DEB	WALLACE	C-TRAN
GREG	WALLWORK	
NORMA	WALRATH	
LINDA	WALTON	PORTLAND STATE UNIV, HISTORY DEPT
NANI	WARREN	
BARBARA	WASMUNDT	
SUE	WAUD	OREGON CITY WOMAN'S CLUB
GAYLORD	WEEKS MD	
DAVID	WELCH	
MARILYN E	WESTLAKE,	PUBLIC INFORMATION DIV
KATHY	WHITCOMBE	
MRS HERBERT	WHITE	
MARY JEAN	WHYTE	
GRANT	WIENKER	
DAVE & JODY	WILEY	
JOHN	WILLIAMS	
MIKE	WILLIAMS	
HERMAN	WILLIAMS, JR	TULALIP TRIBES OF THE TULAIP RESERVATION
HARRIET	WILSON	WILSON/WRIGHT PROPERTIES
MIKE	WILSON	VANCOUVER CITY COUNCIL MEMBER

First Name	Last Name	Agency/ Organization/ Individual
JOANNA	WILSON	MURDOCK CHARITABLE TRUST
JOANNA	WILSON	
JOANNA	WILSON	
DAVID	WIMMER,	OR CITY CHAMBER OF COMMERCE
MRS S R	WINCH	
PAULA	WINTER	CULTURAL COMMISSION
PAMELA SONES	WOLF	
JO & WOODY	WOODRUFF	
ROXANNE	WOODRUFF	
SANDRA K	WOODRUFF	
JOHN	WULLE	OFFICE OF ATTORNEY GENERAL
MURIAL	WYATT	
THE HONORABLE RON	WYDEN	UNITED STATES SENATE
LOUIE	WYNNE	SPOKANE TRIBE OF THE SPOKANE RESERVATION
BILL	YALLUP,	YAKAMA INDIAN NATION
JOHN	YARNISH,	URS CORPORATION
DAVID	YOUCKTON	CONFDRTD TRIBES OF THE CHEHALIS RESVN
DR JOHN A	YOUNG	OR STATE UNIV, ANTHROPOLOGY DEPT
GEORGE & JANE	YOUNG	
EARL & LUCILE	ZAK	
PAUL	ZAVADA	